Transit Financing: The Next Decade

Toronto Transit Commission

October, 1984

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ACKNOWLEDGEMENTS

The consolidation and organization of the Transit Financing Report, was completed by Mr. William Lambert, a Corporate Planning Policy Analyst, under the direction of Dr. Joel Miller, Manager of Corporate Planning. The analysis and background reports for this summary report were completed by Mr. John Davies, Statistical Economist, Finance Department. The contributions of Ms. Mary Ann George, a Corporate Policy Analyst, to special sections of the report, and Miss Helen Steger as the Word Processing Operator, are also acknowledged.

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RECOMMENDATIONS

1. A formalized approval process for operating support and capital spending should be advocated to ensure that:

   - o The 75% capital subsidy rate is maintained;
   - o Local decisions regarding spending priorities and technology choice remain in the hands of Metro and the TTC;
   - o There is continued and long-term (5-year) operating support;
   - o There is a guarantee of an annual allocation of capital funds over a five-year period; and,
   - o Adequate capital funding is available to enable planned TTC capital projects to be completed as required and within a reasonable timeframe.

2. The status and extent of the Provincial BILD Program should be immediately resolved.

3. A streamlining of the environmental, land use and planning process for major capital projects should be encouraged.

4. Alternative and innovative sources of funding for capital projects should be studied.

5. The existing revenue/cost ratio target should be maintained.

6. Earmarked subsidies for specific costs of the TTC should be promoted and established. These costs include concession fares, rapid transit start-up costs, integrated system fare discounts, and service to cross-boundary commuters.

7. A carryover fund to average out year-to-year fluctuations in the revenue-cost ratio should be established.

EXECUTIVE SUMMARY

I Background/Purpose

This report consolidates the discussion and recommendations of two previous background papers which dealt with the financing of operating and capital expenditures entitled the Operating Subsidy Study and Capital Financing Study, respectively.

The past two decades have seen the initiation and refinement of the operating and capital subsidy agreements of the TTC and its two financing partners, Metro and the Province.

A number of issues in the current operating subsidy policy and capital financial arrangements persist or are emerging, and need to be examined and resolved. Some overall issues addressed in the report include a review of the most equitable ways of financing the TTC's future operating and capital expenditures, and the impact of future economic government restraint on the level and timing of future operating and capital spending levels in transit.

This report presents a review of the present operating and capital financial arrangements, in order to identify these issues, and recommends a TTC position on operating and capital financing for future discussions with Metro and the Province.

II Ten-Year Spending Scenarios

Capital

Three ten-year scenarios were developed to display the funding required for currently approved capital projects

Exhibit E-1

Summary of Capital Scenarios
(millions of 1984 $)

	A	B	C
MTC Subsidy Policy	Annual Average not to be Above $131 M	Strict Adherence to Annual Maximum $131 M	Annual Maximum $100-110 M
BILD Commitment	90% of Total of DRT	$90 M Total	$90 M Total
Total Program Value 1984-1993	2,115.0	1,778.7	1,604.8
TTC Contribution	67.0	61.7	44.8
Metro Contribution	342.0	351.0	322.0
MTC Contribution	1,101.0	1,290.0	1,162.0
BILD Contribution	605.0	76.0	76.0

Major Completion Dates With Scenarios

	Metro Approved (Jan. 1984)	Scenario[1] A	Scenario B	Scenario C
Spadina LRT	1990	1990	1992	1992
DRT	1990	1990	1993	1994
Cross-town	1991	1995	1999	2002
Eglinton*	1995	1998	2003	2007

1 Scenario A has different completion dates for the Cross-town and Eglinton lines than the Metro Approved Capital Budget because it assumes some increased restraint in Provincial capital subsidies. The Province announced its $131 million capital budget guideline for the TTC after Metro approved the capital budget in January 1984.

* Presumed.

and the impacts on this schedule of alternative subsidy assumptions. These scenarios are summarized in Exhibit E-1.

Scenario A

If the level of spending in the TTC's current 5-Year Capital Works Programme and Capital Budget were to be extended through to 1993, an annual capital expenditure averaging $212 million (1984 $) would be required over the next 10 years. This level of spending would enable commencement of 3 major rapid transit links specified in the TTC's Long Range Plan.

- Downtown Waterfront/Relief line (DRT);
- Cross-town line along Sheppard Avenue (first stage: Yonge to Scarborough City Centre);
- Eglinton line from Spadina Subway to the Metro west boundary.

Scenario A differs slightly from the capital budget approved by Metro in January 1984, due to the fact that the Province announced its $131 million capital budget guideline for the TTC after this date. The major impact of this action was the removal of the Cross-town line from the 1984-88 capital program.

This spending program can be characterized as ambitious, compared to the capital expenditures of the past decade (average $130 million annually in 1984 $).

Scenario B

Scenario B differs significantly from Scenario A in that it assumes the Provincial BILD contribution to the DRT project will be limited to $90 million and not 90%, and that the total capital expenditures would be even more constrained (i.e. cut of $337 million from Scenario A). Even with the reduction in overall capital expenditures, MTC's average annual subsidy increases from $110 million (Scenario A) to

$129 million, and Metro's average annual subsidy increases from $34 million to $35 million, since the BILD contribution would be much less.

Scenario C

Scenario C assumes more severe Provincial subsidy restraint than Scenario B and that a further $174 million worth (1984 $) of capital construction would be deferred beyond the 1984-1993 period. It again assumes the BILD program will only provide a total $90 million to the Downtown Rapid Transit project.

Operating

Three scenarios assuming low, medium and high growth were developed to project operating requirements over the 10-year period 1984-1993.

Low Growth Scenario

This scenario is fairly pessimistic with respect to economic growth, unemployment, interest rates and consumer and business spending. Additionally, real declines in gas prices would slow the modal shift to transit. Annual ridership would increase from 414 million in 1984 to 432 million in 1993. This scenario would not see a great need for the capital projects discussed above. In real terms, average fares would decrease by 4.3% over the 1984 to 1993 period.

Medium/Expected Growth Scenario

If the level of growth in the TTC's current 5-Year Operating Forecast is extended through to 1993, annual operating subsidies averaging $130.4 million (1984 $) would be required over the next 10 years. These operating subsidy

requirements represent a 31% increase from the average annual operating subsidy levels of the past decade of $99.5 million (1984 $). In real terms, average fares would decrease by 7.2% over the 1984 to 1993 period.

The growth in mileage to meet the demand in the medium growth scenario requires an expansion of the diesel bus fleet, which will in turn necessitate a new bus garage by 1987. Ridership would grow to 468 million by 1993. The growth in ridership in this scenario is 13% between 1984 and 1993, as compared to a ridership increase of 23% in the 1974 to 1983 period.

High Growth Scenario

The high growth scenario assumes pronounced economic growth and a large ridership increase (from 422 million in 1984 to 510 million in 1993). The high growth scenario would lead to serious overcrowding problems on the system and require lead time to gain approval for and construct new rapid transit lines to serve the ridership demand. Interim measures to relieve subway and surface capacity problems would be required. In real terms, average fares would decrease by 9.3% over the 1984 to 1993 period.

Summary

Exhibit E-2 summarizes the operating cost scenarios over the 10-year period.

Exhibit E-2

Comparison of 10-Year Operating Growth Scenarios

	Low	Medium	High
1984 Ridership (millions)	414	416	422
1993 Ridership (millions)	432	468	510
1993 Miles (millions)	120.6	128.1	137.9
Density (1993)	3.58	3.65	3.70
Real Growth in Subsidies (%) (1984-1993)	8.4	12.2	25.1
Real Growth in Fares (%) (Decline) (1984-1993)	(4.3)	(7.2)	(9.3)

* Assumed Average Annual Inflation Rate approximately 6%.

III Issue Identification

Capital and Operating Issues

Absolute Growth in Spending

During the next ten years, there will be a significant absolute increase in capital and operating expenditures. Combining the medium/expected growth operating scenario and the restrained capital expenditure scenario (B), the ten year average annual total expenditure will be $585 million versus $437 million in the 1974 to 1983 period (1984 $).

What Can Metro Afford?

Metro's average annual spending in TTC capital over the next ten years will vary widely, depending upon what becomes of the BILD subsidy issue and whether or not Provincial restraint dictates the more modest expansion of Scenario B or C. The average annual Metro share of capital is shown below:

Average Annual Metro Capital Subsidy (1984-1993)
(million of 1984 $)

Metro Average 1974-83	Metro Approved 1984-88	Scenario A	Scenario B	Scenario C
25	49.6	34	35	32

While Metro spent $25 million on the TTC between 1974-1983, this relatively modest level was due, in part, to a conservative debt management policy. Recently, with Metro's approval of capital subsidies for the 5-Year Capital Works Programme, an indication of support for higher levels of Metro spending on transit has been provided. However, Metro's capital support position could change, if economic

conditions change significantly, or Metro has to pay a greater than expected share of the DRT line as a result of the BILD subsidy issue.

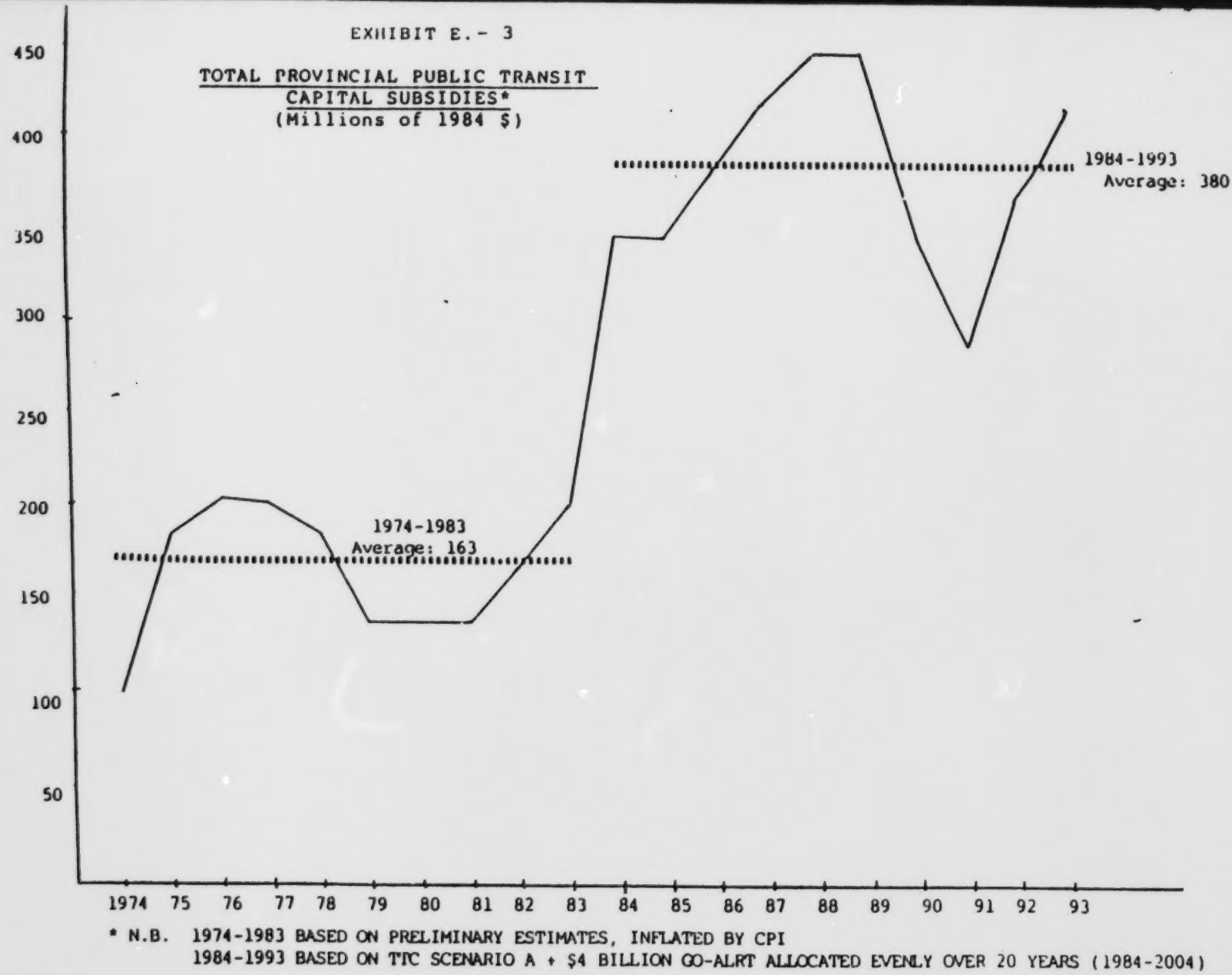
On the operating side of the ledger, Metro, since 1974, has traditionally made a 16% contribution towards the Provincially-defined deficit of the TTC, with an annual average operating subsidy of $49 million. However, in the alternative ten-year 1984-1993 operating scenarios, Metro's contribution is, on average, expected to slightly exceed the Province's each year (e.g. annual average 16.3% or $66 million for Metro versus 15.7% or $63 million for Province). Metro may also find increasing operating subsidies to the TTC difficult to fund due to possible economic restraint.

What Can the Province Afford?

As can be seen from Exhibit E-3, total Provincial transit capital subsidies (i.e. to GO Transit and all municipalities) are expected to significantly increase from the levels of the past ten years, due in part to the TTC, but principally due to the unprecedented expenditures proposed for the GO/ALRT program (estimated to cost $4 billion in 1984 $). Provincial operating subsidies would increase only marginally in real terms (see Exhibit E-4), but still may be resisted by the Province due to a possible increased economic restraint, and the projected impact of GO-ALRT.

Future Provincial average annual operating subsidies of $63.4 million (Medium/Expected Growth Scenario), combined with total Provincial (MTC and BILD) average annual capital subsidies of $170.0 million (Scenario A with BILD = 90% of the DRT project) will be difficult for the Province to accept, given the prevailing attitude regarding public sector restraint. The Province's announcement of decreased emphasis on GO/ALRT in the short term will help to alleviate the

EXHIBIT E.- 3

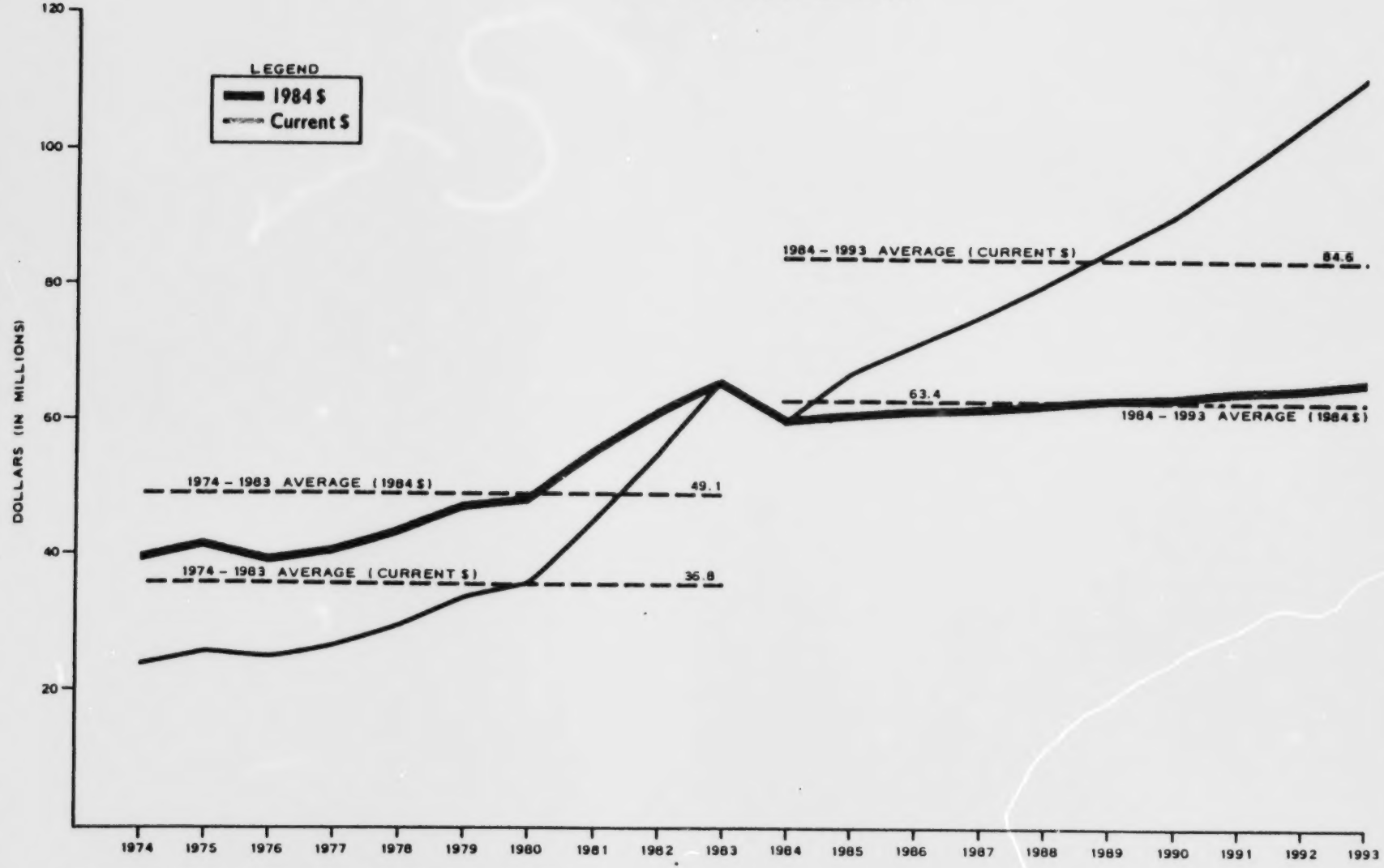


* N.B. 1974-1983 BASED ON PRELIMINARY ESTIMATES, INFLATED BY CPI
1984-1993 BASED ON TTC SCENARIO A + $4 BILLION GO-ALRT ALLOCATED EVENLY OVER 20 YEARS (1984-2004)

Exhibit E-4

PROVINCIAL OPERATING SUBSIDIES TO T.T.C.

(Millions of Current and 1984 $)



N.B. 1974 - 1983 INFLATED BY C.P.I. TO 1984 DOLLAR
1984 - 1993 BASED ON MEDIUM GROWTH SCENARIO

TTC OP 84.07.26 DRG NO 6780

critical nature of the capital funding restraint over the next ten years. However, all subsidy dollars, both operating and capital, will still require strong justifications due to the Province's overall deficit position.

Capital Issues

Interpretation of the BILD Commitment

If the subsidy under the BILD program is in fact limited to $90 million and not 90% (presently assumed by the TTC and Metro), both Metro's and MTC's share of the Downtown Rapid Transit project increase. Metro, for its part, may decide to delay completion of the DRT project, or opt for less expensive solutions to serve the Central Waterfront and provide Yonge Subway relief. In turn, this could delay achieving the Province's BILD program objectives (i.e. to promote UTDC and help market ICTS technology abroad) and not serve to assist Metro/TTC - Provincial co-operation.

Importance of TTC Projects and GO/ALRT

With the recent announcement by the Minister of Transportation and Communications, Provincial financial support will be provided to both the planning, co-ordinating and implementation of the Provincial GO/ALRT Program, and the TTC's Cross-town rapid transit projects along Sheppard Avenue and Eglinton Avenue. With this statement from MTC, the TTC's immediate plans for rapid transit routes in north Metro can be achieved, while longer-term corridors for an inter-regional GO/ALRT service in north Metro are studied.

As well, the Minister indicated that MTC, TTC and GO Transit would endeavour to work together to look at future commuter demands in the Central Waterfront Area, and develop

the most appropriate transit plans for this area, including the TTC's plans for DRT and the Harbourfront LRT.

Metro/TTC Options in the Face of Restraint

In the event that capital subsidy restraint, as suggested by Scenarios B and C becomes a reality, Metro and the TTC have a number of options:

1. Stretch out the start/completion dates of the various rapid transit projects.

2. Opt for interim less expensive solutions such as express buses or LRT service.

3. Pursue the original capital spending proposals by making up the shortfall of funds from the Province through other sources.

Options 1 and 2 would delay the attainment of certain Metro/TTC goals related to land use development and ridership. The impact on the Railway Lands and Harbourfront would have to be considered in this context.

Alternative sources of funding include an earmarked transit levy, sales tax, debenturing and a payroll tax. These sources, which have been tapped elsewhere, do not appear to be popular at this time, but may become so in the future. Contributions are obtained from developers and this source could be broadened.

The Stabilized Budget Approval Process

The recent Provincial announcement of subsidy restraint is disconcerting because it came long after the TTC had provided MTC with a 5-year forecast of operating expendi-

tures - and after considerable effort had been expended in putting out the 1984-1988 Capital Works Programme and Capital Budget.

It is difficult to undertake responsible long-term financial planning without a stable and predictable subsidy environment. To this end, it is suggested that a longer-range approval process be formalized.

MTC's proposed guideline of approximately $131 million (plus escalation) would create a problem for Metro, since the peaks and valleys generally associated with major rapid transit line expenditures have traditionally allowed Metro to schedule other large capital projects when TTC capital requirements have dropped off.

A constant level of financial support may be beneficial if it ensures a predictable source of funds upon which to plan for the future. If expenditure requirements were heavy in some years, Metro would have the option of financing the additional amount (i.e. beyond its standard 25% share). If spending requirements were lighter, as project construction neared completion, Metro would still have its guaranteed transit allocation. Over a number of years, the principle of a 75:25 split would still be retained, on average.

Whether or not the Province would be willing to accept such a proposal is uncertain. The Ministry of Transportation and Communications would still be able to maintain financial control over projects by having project approval. However, the Ministry might have difficulty in getting the Provincial government to support a long-term funding program, in light of the uncertainty about the future economy.

The Level and Impact of Capital Subsidies

Level of Subsidies

A possible modification to all or specified elements of the Province's capital programs (e.g. a subsidy decrease from 75% to 50% for certain classes of projects such as "modifications" and "surface expansion") would certainly change Metro's thinking about what level of spending it could afford. In Metro's case, a reduction of the Provincial subsidy rate from 75% to say 50% for all projects would require a 100% increase (or $35-44 million annually) in Metro's share to support the current levels of capital spending.

The rationale behind any reduction in the capital subsidy rate is not clear at this time, especially as the R/C ratios of transit properties in Ontario generally exceed those of major cities across Canada, even where the combined effect of both operating and capital expenditures are considered (see Exhibit E-5).

Impact of Subsidies

The Province has successfully used the favourable 75% capital subsidy rate to induce a pro-transit bias. However, recently the Province has extended its financial influence to further specific goals, by directing the TTC/Metro choice of technology, supplier and alignment priority. Two examples come to mind:

- The Waterfront ICTS - with a BILD subsidy inducement (and recent indication that any significant delay in implementation could jeopardize the special subsidy rate offered);
- Insistence by the Province that the recent streetcar order might not be subsidized if the TTC went to tender and selected a supplier other than UTDC.

Exhibit E-5

Revenue/Cost Ratios of Selected Transit Properties

1981 - U.S.; 1982 - Canada

Transit Property	R/C % (Operating)	Provincial Target	R/C % (Combined Operating* Plus Capital)
Boston	29.9		25.9
Chicago	59.2		49.9
Cincinnati	34.8		N/A
Washington	51.2		21.8
Philadelphia	45.1		34.4
Baltimore	49.5		19.0
Montreal	41.0		37.0
Quebec	46.0		42.0
Winnipeg	50.0		49.0
Calgary	50.0		19.0
Edmonton	37.0		19.0
Vancouver	45.0		36.0
Toronto	68.8	(72.5)	54.1
Ottawa	60.0	(65.0)	54.0
Hamilton	48.0	(65.0)	44.0
Mississauga	60.0	(65.0)	58.0
GO Transit	47.0	(65.0)	29.0
London	71.0	(65.0)	67.0
Windsor	63.0	(60.0)	54.0

*N.B. Capital subsidies are highly variable from year to year, thus combined R/C's in 1982 may not be indicative of long-term averages.

Public transit has and should remain the domain of municipal government. While some compromise may be in order given the stake the Province has in UTDC, the TTC is the agency responsible for operating the system within Metro and should be allowed to choose the most appropriate technology. Similarly, Metro and the TTC should jointly determine spending priorities. The Province should not be excluded from participating in these decisions, although the increasing use of their financial clout to influence local decision-making should be resisted.

The Approval Process (Environmental/ Planning/Land Use)

A complicated and long process is involved in obtaining the appropriate planning, land use and environmental approvals for major capital projects. The time and effort involved in this process can significantly add to the cost of projects and delay their implementation.

All parties involved in this approval process for major capital projects must be aware of these time and monetary costs, and attempt to streamline the process, where possible.

Operating Issues

The $1.00 Cash Fare

The future ten-year operating scenarios all show that fare increases will be in line with the rate of inflation, resulting in a $1.00 adult cash fare by 1985 or 1986. However, rider's surveys have shown that transit users are willing to accept fare increases which offset increases in costs due to inflation, as long as service levels are maintained.

Cross-Boundary Subsidies

Metro residents are cross-subsidizing transit use by a large number of inter-regional commuters, which represent 8-10% of all TTC trips, and are estimated to represent 40% of the TTC's ridership growth until the end of the decade (i.e. will increase to 12% of average annual TTC ridership by the end of the decade). This group of inter-regional commuters receive a much higher rate of capital and operating subsidy than Metro residents utilizing the TTC, and generate capital and operating costs for Metro. Growth in inter-regional trips is promoting the need for the establishment of a special subsidy to offset these cross-subsidization costs.

Changing the Revenue/Cost Ratio

A number of alternative changes to the current revenue/cost ratio target were considered, including raising the target, reducing it and introducing special subsidy modifications. A central issue to these modifications is whether they would serve to improve the equity of the fare system for the riders. Some respective advantages and disadvantages of the possible changes are summarized:

Raising the Revenue/Cost Ratio

Advantage

- Would increase the independence and financial stability of the TTC.

Disadvantage

- Would cause fares to rise and hence might reduce ridership. Would serve to increase the burden on the rider for financing operating expenditures.

Lowering the Revenue/Cost Ratio

Advantages

- *Transit in Metro serves many community objectives (e.g.* land use development, air pollution reduction, etc.) which warrant a higher taxpayer contribution from the taxpayer. This would serve to improve the equity of how operating expenditures are financed.

- Fare increases could be reduced and hence increased ridership might be generated.

Disadvantages

- The subsidy cost per ride would increase.

- The TTC would become more dependent upon Metro and the Province for its financing at a time of public sector spending restraint, and hence, make the TTC more susceptible to erratic external influences.

- A greater financial burden would be created for Metro, as Metro would be responsible for three-quarters of the increased subsidy.

Several modifications can be made to the current revenue/cost ratio which will not significantly lower or raise the ratio, and other changes can be made to the overall operating subsidy policy which will serve to improve the financial stability of the TTC, improve the equity of the fare system for Metro riders, and stabilize the long-term planning of the TTC. Those modifications include:

- The establishment of a carryover fund to return any surplus achieved by exceeding the revenue/cost target to riders in subsequent years.

- The shifting of the incidence of concession fare grants for seniors to the taxpayer by reducing the actual contribution of revenue to the revenue/cost target made by adult riders to cover the cost of concessions, and substituting this actual revenue with a transfer equally split by Metro and the Province.

- The expansion of the special subsidy program for new rapid transit projects (built initially to meet economic or land use development objectives), so system riders do not have to make up the high net costs associated with these projects until they reach maturity. This would involve a transfer from Metro to the riders equivalent to 50% of the estimated difference between the 68% R/C ratio and the actual R/C ratio on the new projects.

- The establishment of a principle with respect to fare integration ticket discounts so all lost revenue under such schemes is met by the Province.

- A request to the Province for the provision of longer term operating subsidy grant programs (5 years) to introduce more stability into transit operational financing and planning.

- A request to the Province for the introduction of special operating subsidy incentives based on some transit performance criteria such as total ridership, ridership/vehicle kilometre, and subsidy/ride.

1.0 INTRODUCTION

1.1 Background and Purpose

This report consolidates the discussions and recommendations of two previous background papers which dealt with the financing of operating and capital expenditures, respectively, entitled the Operating Subsidy Study and the Capital Financing Study.

The operating subsidy policy initiated in 1971 evolved significantly, with a number of changes to the policy being made in the mid-1970's. However, in 1977, the TTC's Transit Revenue Policy Study was completed and was able to provide a stable foundation for the current operating subsidy policy, with only modest and incremental modifications in recent years.

Some existing rapid transit capital expansion plans, which were not approved in the 1970's, have recently been rekindled, significantly due to the unprecedented ridership growth observed in the 1979-84 period. In 1981, the joint Metro/TTC ARTS study identified a Downtown Relief/ Waterfront line and a Cross-town line north of Highway 401, linking Yonge Street to the Scarborough City Centre as equal and immediate priorities for Metro. These segments formed components of the long-term concept plan prepared in the TTC's Long Range Plan. About the same time, the Province announced its massive GO/ALRT inter-regional commuter rail expansion program.

A number of issues relating to the current operating subsidy policy and capital financial arrangements persist or are emerging and need to be examined and resolved. Some overall issues addressed in this report include a review of the most equitable ways of financing the TTC's future

operating and capital expenditures, and of how much future economic government restraint will affect the level and timing of future operating and capital spending levels in transit.

This report presents a review of the present operating and capital financial arrangements, intended to identify these issues and recommend a TTC position on operating and capital financing for future discussions with Metro and the Province.

1.2 Approach/Organization

The approach used in this study was to:

- Develop 10-year TTC operating and capital spending scenarios in order to facilitate identification of long-term financing issues;
- Identify and discuss current or possible future problems or issues, concentrating on the question of affordability and the impact of restraint with respect to capital financing, and the equity or fairness of the operating subsidy;
- Generate and evaluate policy alternatives for operating and capital financing;
- Provide recommendations regarding the preferred operating subsidy policy, and capital financial arrangements.

2.0 CURRENT FINANCING

2.1 Operating Subsidy Policy

To summarize the current operating subsidy policy:

1. The TTC has a revenue/cost target of 68% which was established by Metro in 1980. The Provincial revenue/cost target for the TTC is 72.5%.

2. The Province provides an operating subsidy to the TTC which is equal to 50% of the difference between the total operating cost of the TTC and the Provincial R/C target of 72.5% (i.e. 13.75%), plus 25% of the shortfall between the actual and Provincial target R/C ratio.

   Thus, if the TTC achieved a 68% R/C, the Provincial contribution would be:

   $$(72.5\% - 68\%) \times .25 + 13.75\% = 14.875\%$$

3. In addition to the Provincial operating subsidy described above, the Province provides a special subsidy towards the operating costs of new rapid transit facilities (i.e. Scarborough and Spadina), in recognition that these systems were built for land use and economic development objectives, ahead of travel demand, and ridership in these lines has not reached the levels of other mature rapid transit facilities. This special subsidy has two portions:

   - an assurance portion which subsidizes the difference between the line's "mature" revenue/cost ratio and its achieved ratio each year; and,
   - an incentive subsidy which rewards the attainment of established ridership and land-use objectives associated with the new line.

As a result of the basic and special rapid transit Provincial operating subsidies, the Province pays approximately 16% of the operating costs of the TTC.

4. Metro provides an operating subsidy to the TTC which is equal to the difference between the total operating cost of the TTC, and the revenues the TTC collects from the farebox combined with the Provincial operating subsidies. Metro's share of the TTC's operating costs has been approximately 16% since 1980.

A detailed summary of the history and development of the operating subsidy policy is presented in a background paper entitled, "TTC Revenue/Cost Ratio: An Overview".

2.2 Capital Financing

To summarize the current financing of transit capital expenditures:

1. The Province pays for 75% of approved capital works, including construction and rehabilitation of rapid transit and light rail facilities (including streetcars), and Metro pays the remaining 25%. the Capital Works Program represents the majority of TTC capital expenditures. Other special Provincial financing arrangements are made occassionally as well (e.g. Scarborough Rapid Transit - 75% of first $103 million and 100% of balance).

2. Projects approved under the BILD Program are eligible for a 90% Provincial subsidy, with Metro paying 10%.

3. The Province pays for 75% of surface capital asset replacement items (principally buses), with the TTC paying the remaining 25%. In addition, the TTC pays 100% for such unsubsidizeable assets as automotive service vehicles and miscellaneous equipment. The TTC contribution to items in the Capital Budget is made through its depreciation allowance.

The capital budget approved by the Metro Sub-committee in late 1983, and the specific levels of capital funding for the TTC and specific projects are described in Appendix A.

3.0 TEN-YEAR CAPITAL SPENDING SCENARIOS

In order to facilitate the identification and discussion of problems or issues related to future operating subsidy policy and capital financing, three ten-year spending scenarios (1984-1993) have been developed, respectively, for operating and capital plans and expenditures.

3.1 Ten-Year Capital Scenarios

The emphases in the capital scenarios are the general level of spending, the incidence of capital subsidies, and some potential implications for network expansion, rather than on specific expenditures each year. Each scenario illustrates a varying level of spending restraint. All dollar values used in the capital scenarios will be in 1984 $. Exhibit 3.1 summarizes the three capital scenarios. Detailed descriptions of these scenarios are contained in Appendix B.

In Scenario A, the TTC's planned capital projects are not as constrained by the limits of Provincial subsidies in all years, as in Scenarios B and C. As a result, the Spadina RT and Downtown Rapid Transit capital projects, as approved recently by Metro, are able to be completed in line with the scheduled completion dates approved by Metro. However, Scenario A assumes some more restraint in Provincial capital subsidies than in the Metro budget, and therefore, moves the completion dates for the Cross-town project from 1991 to 1995, and for the Eglinton project from 1995 to 1998. The average annual subsidies over the 1984-1993 period by MTC and Metro are $110 million and $34 million, respectively.

Scenario B differs significantly from Scenario A in that the BILD Program subsidy contribution to the DRT project is restricted to $90 million versus a 90% share and the total

Exhibit 3.1

Summary of Capital Scenarios
(millions of 1984 $)

	A	B	C
MTC Subsidy Policy	Annual Average not to be Above $131 M	Strict Adherence to Annual Maximum $131 M	Annual Maximum $100-110 M
BILD Commitment	90% of Total of DRT	$90 M Total	$90 M Total
Total Program Value 1984-1993	2,115.0	1,778.7	1,604.8
TTC Contribution	67.0	61.7	44.8
Metro Contribution	342.0	351.0	322.0
MTC Contribution	1,101.0	1,290.0	1,162.0
BILD Contribution	605.0	76.0	76.0

Major Completion Dates With Scenarios

	Metro Approved (Jan. 1984)	Scenario[1] A	Scenario B	Scenario C
Spadina LRT	1990	1990	1992	1992
DRT	1990	1990	1993	1994
Cross-town	1991	1995	1999	2002
Eglinton*	1995	1998	2003	2007

1 Scenario A has different completion dates for the Cross-town and Eglinton lines than the Metro Approved Capital Budget because it assumes some increased restraint in Provincial capital subsidies. The Province announced its $131 million capital budget guideline for the TTC after Metro approved the capital budget in January 1984.

* Presumed.

capital expenditures are more constrained. This has the impact of raising MTC's ten-year average annual subsidy from $110 million to $129 million, and Metro's from $34 million to $35 million. Completion dates for major projects are delayed two to five years compared to Scenario A.

In Scenario C, it is assumed that even Scenario B understates the future restrictions in capital subsidies which will be necessary because of economic circumstances. Again the BILD program subsidy is assumed to be $90 million. In this scenario, the total capital expenditures are reduced an additional $174 million in the 1987-1993 period (from Scenario B). This has the impact of further delaying major rapid transit projects.

Detailed summaries of these three capital scenarios are included in Appendix B.

3.2 Ten-Year Operating Scenarios

Three separate ten-year operating expenditure scenarios have been developed. The low, medium and high growth scenarios were developed using the most recent five-year operating forecasts (1984-1989) as a base. These forecasts were developed utilizing the following procedures:

1. An expected or medium ridership forecast was developed, based on analysis of past trends and projections for the major variables. High and low forecasts were also produced, to provide a reasonable range of outcomes for contingency planning.

2. The ridership forecasts were used to generate mileage estimates by mode and associated vehicle requirements.

3. The mileage projections were translated into operating costs, assuming costs rise closely with the rate of inflation (6% to 7% after 1984, which allows for some real growth).

4. Ridership, cost and other projections were then used to calculate fare increases and subsidy requirements for each forecast.

The data from the alternative 5-year forecasts was then used to generate low, medium and high ten-year operating scenarios (1984-1993) by utilizing the average trends in ridership, mileage, costs, fare increases, and subsidies in the 1986 to 1989 period, and extrapolating these trends to 1993. Exhibit 3.2 summarizes the three operating growth scenarios.

3.2.1 Low Growth Scenario

The 1983-1994 low growth operating scenario is shown in Exhibit 3.3. The basis of this scenario is that there is a growing pessimism that economic recovery may not be self-sustaining due to high interest rates, high unemployment and a drop in both consumer and business spending. If economic growth is indeed sluggish, then ridership gains attributed to such factors as employment, shopping, etc. could be much smaller than expected. In addition, a continued real decline in gas prices caused by both slow international economic growth and a shift to alternative energy sources, could slow or stop the modal shift to transit. Ridership could thus increase only modestly over the period, reaching only 432 million by 1993.

In summary, the low growth scenario should not present any operating problems, since proposed service additions can be scaled down commensurately. However, if

Exhibit 3.2

Comparison of 10-Year Operating Growth Scenarios

	Low	Medium	High
1984 Ridership (millions)	414	416	422
1993 Ridership (millions)	432	468	510
1993 Miles (millions)	120.6	128.1	137.9
Density (1993)	3.58	3.65	3.70
Real Growth in Subsidies (%) (1984-1993)	8.4	12.2	25.1
Real Growth in Fares (%) (Decline) (1984-1993)	(4.3)	(7.2)	(9.3)

* Assumed Average Annual Inflation Rate approximately 6%.

Exhibit 3.3

Scenario A: Low Growth
Ten-Year Operating Expenditures (1984-1993)[1]

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Ridership (millions)	414.0	416.0	418.0	420.0	422.0	424.0	426.0	428.0	430.0	432.0
Miles (millions)	114.7	116.5	117.2	117.6	118.2	118.6	119.1	119.6	120.1	120.6
Density	3.61	3.57	3.57	3.57	3.57	3.58	3.57	3.58	3.58	3.58
Operating Cost (millions $) - inflated	391.6	415.7	441.7	467.3	498.7	530.0	563.1	598.3	635.7	677.8
Operating Cost (1984 $)	391.6	400.5	401.4	402.3	403.2	404.1	405.0	405.9	406.8	407.7
Fare[2] Increases (%)		4.1	5.5	5.6	5.5	5.7	5.7	5.6	5.8	6.2
Operating Subsidies (millions inflated $)	122.2	133.4	138.9	152.0	162.1	172.9	183.0	194.4	206.6	220.2
Operating Subsidies (1984 $)	122.2	128.6	126.0	130.0	130.2	131.7	131.6	131.9	132.3	132.5

1 Period 1984-1989 is from the TTC 5-Year Forecast. Period 1990-1993 is based on a projection of average trends from the 1986 to 1989 years. Average annual inflation rate of approximately 6% is assumed.

2 Theoretical fare increases to retain 68 R/C ratio.

ridership were to increase by only 18 million over the next 10 years, there would not be as great a need for the new rapid transit projects which are being planned.

Estimated average fare increases of 5.5% each year are required over this time period to retain the 68% target, and an average annual operating subsidy of $129.7 million is needed (1984 $). However, over the 10-year period, fares would decline by 4.3% in real terms.

3.2.2 Medium/Expected Growth Scenario

The 1983-1994 medium/expected growth operating scenario is shown in Exhibit 3.4. In this scenario, a fairly steady, but moderate rate of growth is projected for the forecast period. Employment and economic activity in general should continue throughout the period, though not at the expansionary pace of the past several months or earlier periods (e.g. 1980-1981). Combined with a program of service improvements (e.g. greater vehicle mileage operated, new rapid transit facilities such as the Scarborough RT, Waterfront and Downtown Relief lines, Harbourfront LRT), the expected concentration of employment in such areas as the Central Waterfront and North Yonge should guarantee ridership growth through to the end of the century (barring unforeseen circumstances such as strikes, reduction in subsidy support, severe recession, etc.).

Growth in mileage to meet demand in the medium growth scenario requires a significant expansion of the diesel bus fleet, which will in turn necessitate construction of a new bus garage by 1987.

Estimated average fare increases of 5.2% each year are required over this time period to retain the 68% target, and an average annual operating subsidy of $130.4 million is

Exhibit 3.4

Scenario B: Medium/Expected Growth
Ten-Year Operating Expenditures (1984-1993)[1]

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Ridership (millions)	416.0	420.0	426.0	432.0	438.0	444.0	450.0	456.0	462.0	468.0
Miles (millions)	114.7	117.4	119.0	120.2	121.7	122.6	123.9	125.3	126.7	128.1
Density	3.63	3.58	3.58	3.59	3.60	3.62	3.63	3.64	3.64	3.65
Operating Cost (millions $) - inflated	391.6	418.2	447.2	478.2	511.3	546.4	584.2	624.6	667.8	714.0
Operating Cost (1984 $)	391.6	395.0	398.4	401.8	405.3	408.8	412.3	415.8	419.4	423.0
Fare[2] Increases (%)		3.8	5.0	5.2	5.2	5.6	5.4	5.5	5.6	5.5
Operating Subsidies (millions inflated $)	121.0	134.3	140.8	154.8	165.8	178.2	188.1	201.1	215.0	229.9
Operating Subsidies (1984 $)	121.0	126.8	125.4	130.2	131.3	132.0	132.8	133.9	135.0	135.8

1 Period 1984-1989 is from the TTC 5-Year Forecast. Period 1990-1993 is based on a projection of average trends from the 1986 to 1989 years. Average annual inflation rate of approximately 6% is assumed.

2 Theoretical fare increases to retain 68 R/C ratio.

needed (1984 $). However, in real terms, fares would decline by 7.2% over the 10-year period.

3.2.3 High Growth Scenario

The 1983-1994 high growth operating scenario is shown in Exhibit 3.5. In this scenario a more pronounced economic recovery could lead to a more significant growth in ridership than presently expected. Employment growth in particular could improve more than forecast - including an increasing concentration in such high modal split areas as downtown and the suburban sub-centres, where development projects are rapidly coming on-stream.

Gasoline prices, possibly the single most important factor behind the rapid shift to transit in 1981, could easily resume their upward track within the next few years, if:

- o supply is disrupted due to Middle East conflict; or,
- o rapid growth in demand for oil occurs, due to world-wide economic recovery.

If prices increase substantially more than currently forecast, ridership growth would spurt as in the past. Thus, on the high side, ridership could grow to 510 million by 1993.

The high growth scenario, which at the present time should not be considered unrealistic, would be more troublesome. There is a substantial lead time required to acquire more peak vehicles and construct new garage facilities, and of course plan, obtain approval, and build new rapid transit lines. Interim measures to provide capacity to relieve serious crowding problems throughout the system require time to implement and considerable political support both in terms

Exhibit 3.5

Scenario C: High Growth
Ten-Year Operating Expenditures (1984-1993)[1]

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Ridership (millions)	422.0	431.0	440.0	450.0	460.0	470.0	480.0	490.0	500.0	510.0
Miles (millions)	114.7	119.8	122.0	124.3	126.6	128.5	130.8	133.1	135.5	137.9
Density	3.68	3.60	3.61	3.62	3.63	3.66	3.67	3.68	3.69	3.70
Operating Cost (millions $) - inflated	391.6	425.5	457.6	492.1	529.2	569.0	611.9	658.1	707.8	761.2
Operating Cost (1984 $)	391.6	398.3	405.1	412.0	419.0	426.1	433.3	440.7	448.2	455.8
Fare[2] Increases (%)		2.8	5.1	5.0	4.9	5.4	5.3	5.3	5.4	5.5
Operating Subsidies (millions inflated $)	117.3	136.7	143.9	159.1	171.3	185.5	197.0	211.9	227.9	245.1
Operating Subsidies (1984 $)	117.3	127.8	127.2	133.1	135.8	138.9	139.5	141.9	144.3	146.8

1 Period 1984-1989 is from the TTC 5-Year Forecast. Period 1990-1993 is based on a projection of average trends from the 1986 to 1989 years. Average annual inflation rate of approximately 6% is assumed.

2 Theoretical fare increases to retain 68 R/C ratio.

of funding and project approval (e.g. transit priority measures).

Estimated average fare increases of 5.0% each year are required over the time period to retain the 68% target, and an average annual operating subsidy of $135.3 million is needed (1984 $). In real terms, fares would decline by 9.3% over the 10-year period.

3.3 Ten-Year Total Expenditure Scenario

Exhibit 3.6 illustrates the cumulative impact of the future operating and capital requirements of the TTC, by combining the medium/expected operating growth scenario (Scenario B) and the restrained capital scenario with a $90 million Provincial BILD subsidy (Scenario B).

The above-noted scenarios serve to illustrate that acquiring sufficient funds for future rapid transit projects, and overall expenditures of the TTC will be increasingly difficult in light of Provincial capital subsidy guidelines, and possible future increased economic restraint as a result of possible future economic conditions. The TTC will have to resolve many of the issues discussed in Chapter 4 to endeavour to improve future financing of its capital plans and operations.

Exhibit 3.6

Combined Impact of TTC Operating and Capital Requirements

Medium/Expected Operating Growth Scenario
and
Capital Scenario B - Restrained With $90 M BILD

(millions of 1984 $)

	1984-1993	Average Annual
Total Capital Program	1,778.7	178
Total Operating Program	4,071.4	407
GRAND TOTAL - PROGRAMS	5,850.1	585
Total Capital Subsidies	1,778.7	178
Total Operating Subsidies	1,304.2	130
GRAND TOTAL - SUBSIDIES	3,082.9	308

Overall Revenue/Cost Ratio = 68.0%

4.0 ANALYSIS OF ISSUES

The purpose of this chapter is to identify and discuss problems and issues associated with the current operating subsidy policy and current and future capital financing.

4.1 Total Subsidy Requirement - What Can the Province Afford?

A key issue revolves around the fact that increases in both operating and capital subsidies are being requested at a time when the Province is trying to exercise public sector expenditure restraint. The TTC has already received strong indications that planned spending programs are thought of as too rich by the Province. Recently, the Province established a $131 million guideline (plus inflation escalation) for capital assistance, which may in fact also serve as a ceiling for future expenditures. Provincial restraint of TTC spending could be a response to:

- o General restraint measures imposed on Provincial spending due to:
  - reduced federal government transfer payments
  - reduced sales and income tax revenue
  - a basic policy to trim the deficit.
- o Heavy spending in other areas of transit, particularly GO Transit and GO/ALRT. Restrictions in the growth of the transit allocation may be seen as essential in order to prevent wholesale cutbacks in other Provincial programs.
- o Significant needs of MTC programs and other Provincial social and economic development programs.
- o Difficulty in getting significant increases to a relatively low MTC capital expenditure base in the 1982 and 1983 years.

4.1.1 Capital Subsidies

As illustrated by Capital Scenarios A, B, and C, if MTC's allocation to the TTC is limited to roughly $131 million annually (or less), a further round of cutbacks across a number of programs would be necessitated. As shown in Exhibit 4.1, Scenario A already includes postponement of one of the two rapid transit projects which were assigned equal priority in the ARTS report. Further cutbacks from the capital subsidy levels in Scenario A of $337 million for Scenario B, and $511 million for Scenario C, must again involve the big ticket items - the major rail expansion projects.

Exhibit 4.1

Completion Dates of Major Capital Projects

Project	Metro Approved	Scenario A	Scenario B	Scenario C
o Spadina LRT	1990	1990	1992	1992
o DRT	1990	1990	1993	1994
o Cross-town	1991	1995	1999	2002
o Eglinton	*1995	1998	2003	2007

* Estimated.

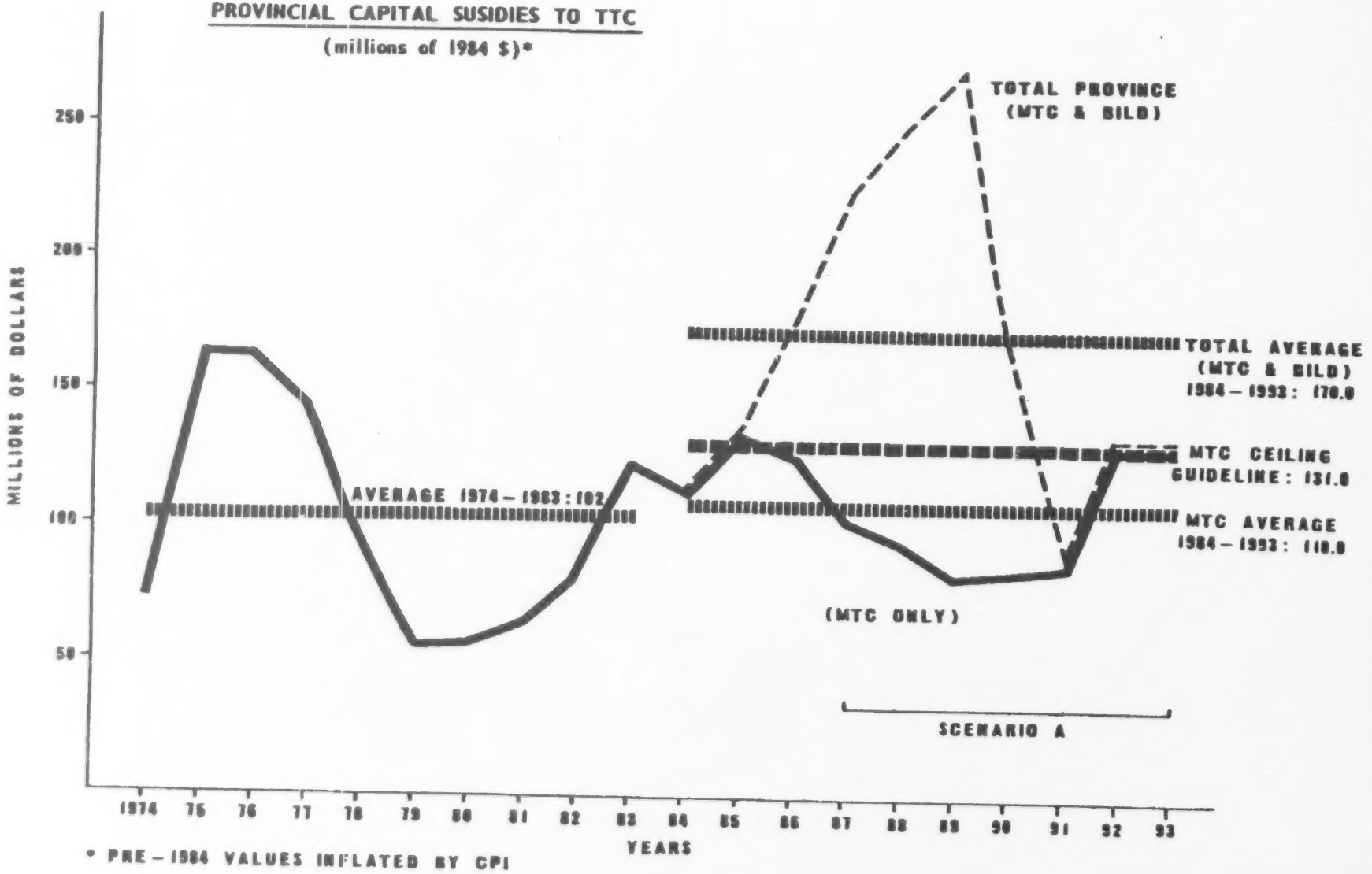
Exhibit 4.2 graphically compares past Provincial capital spending on the TTC with estimated future subsidy requirements (Scenario A with BILD = 90% of DRT). Provincial capital subsidies (MTC plus BILD) for the TTC would average $170.0 million per year between 1984-1993 under this scenario, or over 70% more than that spent in the previous 10 years (1984 $).

Exhibit 4.3 shows that the increase in total Provincial transit spending is even more dramatic if the cost

EXHIBIT 4.2

PROVINCIAL CAPITAL SUSIDIES TO TTC

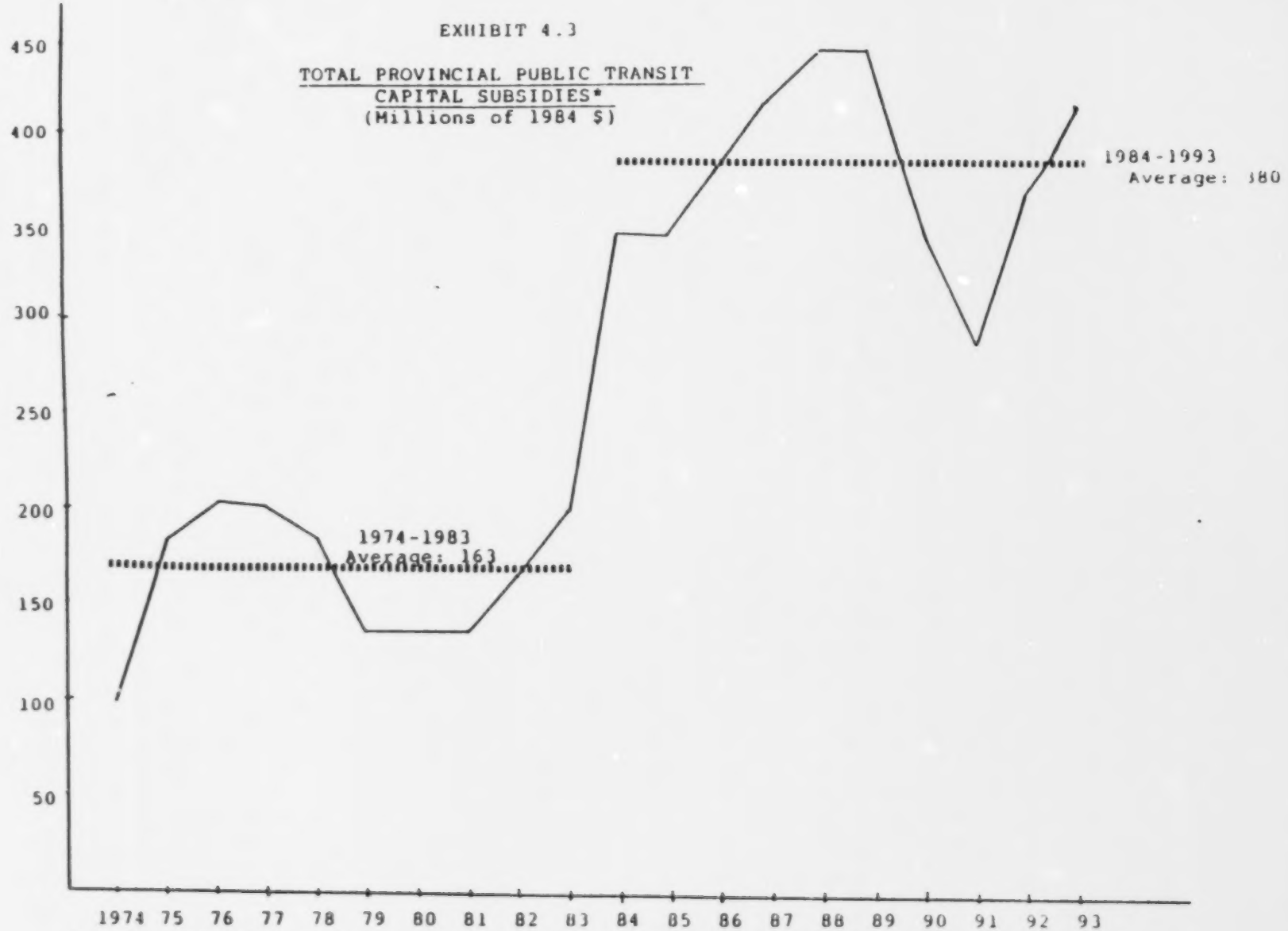
(millions of 1984 $)*



* PRE – 1984 VALUES INFLATED BY CPI

EXHIBIT 4.3

TOTAL PROVINCIAL PUBLIC TRANSIT
CAPITAL SUBSIDIES*
(Millions of 1984 $)



* N.B. 1974-1983 BASED ON PRELIMINARY ESTIMATES, INFLATED BY CPI
1984-1993 BASED ON TTC SCENARIO A + $4 BILLION GO-ALRT ALLOCATED EVENLY OVER 20 YEARS (1984-2004)

of the original GO/ALRT and other programs are added. Assuming a $4 billion price tag allocated evenly over 20 years (i.e. $200 million per year), the Province's transit subsidies would be more than 3 times that spent between 1974-1983 (1984 $).

The long-term spending associated with the GO/ALRT program would have caused the Province to increase its general level of annual spending (highly unlikely given public sector spending restraint), or to delay or shelve Provincial programs. Realistically, it would have been difficult for the Province to initiate a massive program of cutbacks in other sectors in order to support what has to be seen as an ambitious public transportation spending proposal. A more reasonable level of Provincial spending on transit would be in the order of $250-275 million, rather than the $375-400 million implied by Exhibit 4.3. This exhibit includes total Provincial spending on public transportation programs, including GO and other municipalities.

Delaying the completion of proposed rapid transit lines (Exhibit 4.1) will retard the attainment of joint Metro, TTC and even Provincial goals, such as:

- Effective accommodation and encouragement of public transit usage;
- Promotion of economic development - jobs and assessment, without as great a need for expensive and land-extensive road, expressway and parking lot construction.

The need for timely service improvements may necessitate the pursuit of interim or less expensive (and undoubtedly less effective) measures.

By way of example, instead of ICTS for the DRT line, the following could be considered:

- o A Sherbourne express bus service, using reserved lanes, signal priorities and articulated buses; or
- o LRT service using ALRV's on semi-protected rights-of-way and signal priorities on such arterials as Parliament Street or Bay Street.

While these measures would provide neither the same capacity nor quality of service offered by rapid transit, they would be much less expensive and could be implemented in a more timely fashion. Rapid transit construction could possibly be postponed for quite some time, although the impact of such a decision on the Railway Lands and other Central Area development plans must be considered.

In addition to major rail expansion projects, significant cutbacks could also affect other projects which are being pursued in order to improve operating productivity, level and quality of service, or both. To the extent that subsidy restraint impairs the adoption of innovative yet "discretionary" capital projects - longer-term gains could be negated.

4.1.2 Operating Subsidies

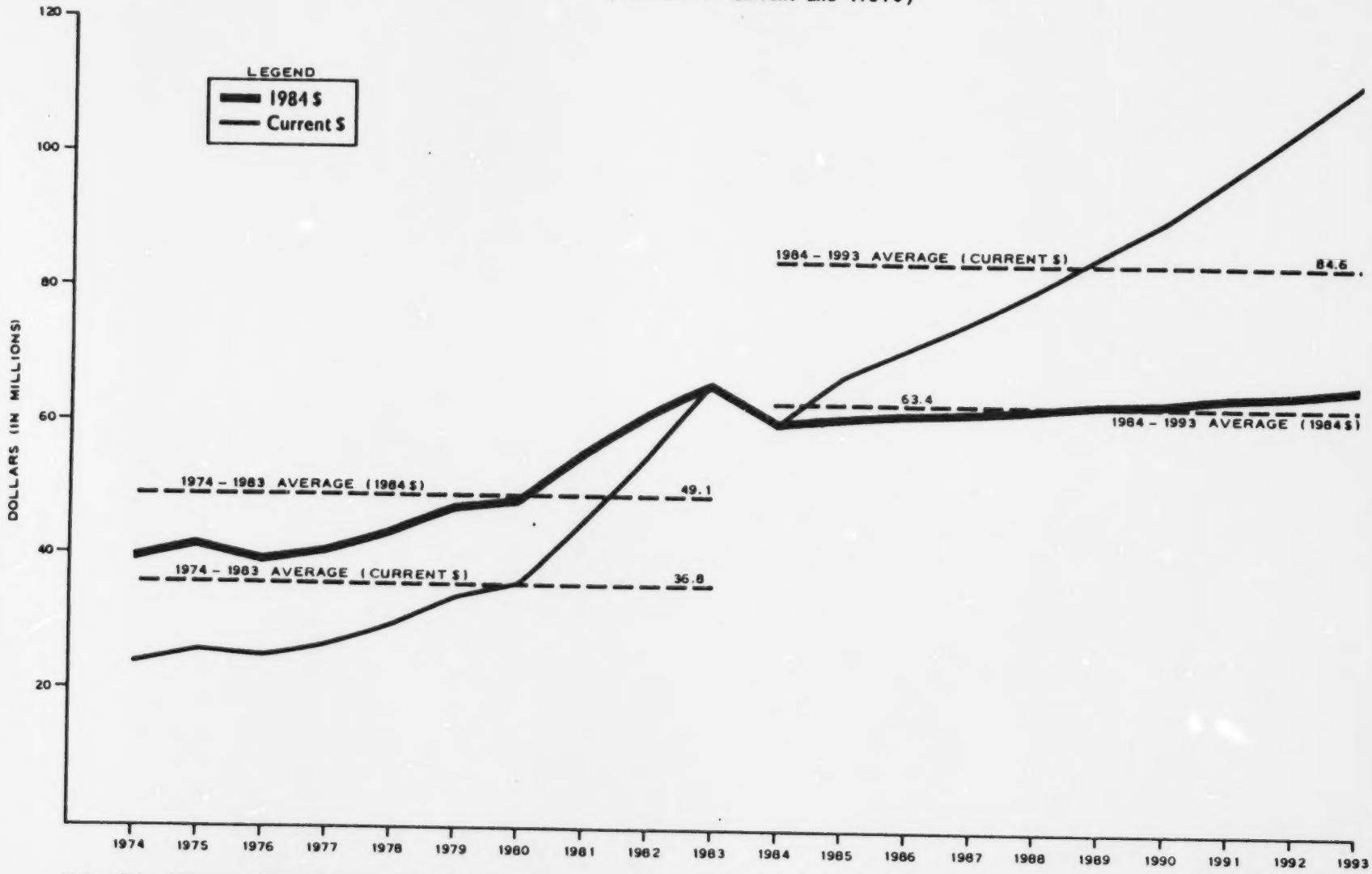
Exhibit 4.4 graphically compares past Provincial operating subsidies to the TTC with future subsidy requirements (medium growth scenario). Provincial operating subsidies for the TTC will average $63.4 million per year between 1984-1993 under the medium/expected growth operating scenario, or over 29% more than spent in the previous ten years (1984 $).

Exhibit 4.5 illustrates that Provincial total transit operating assistance has been relatively constant since 1974 (in 1983 $). There are inclinations from the Province, with the current philosophy of restraint, that future operating subsidy levels will not have significant

Exhibit 4.4

PROVINCIAL OPERATING SUBSIDIES TO T.T.C.

(Millions of Current and 1984 $)

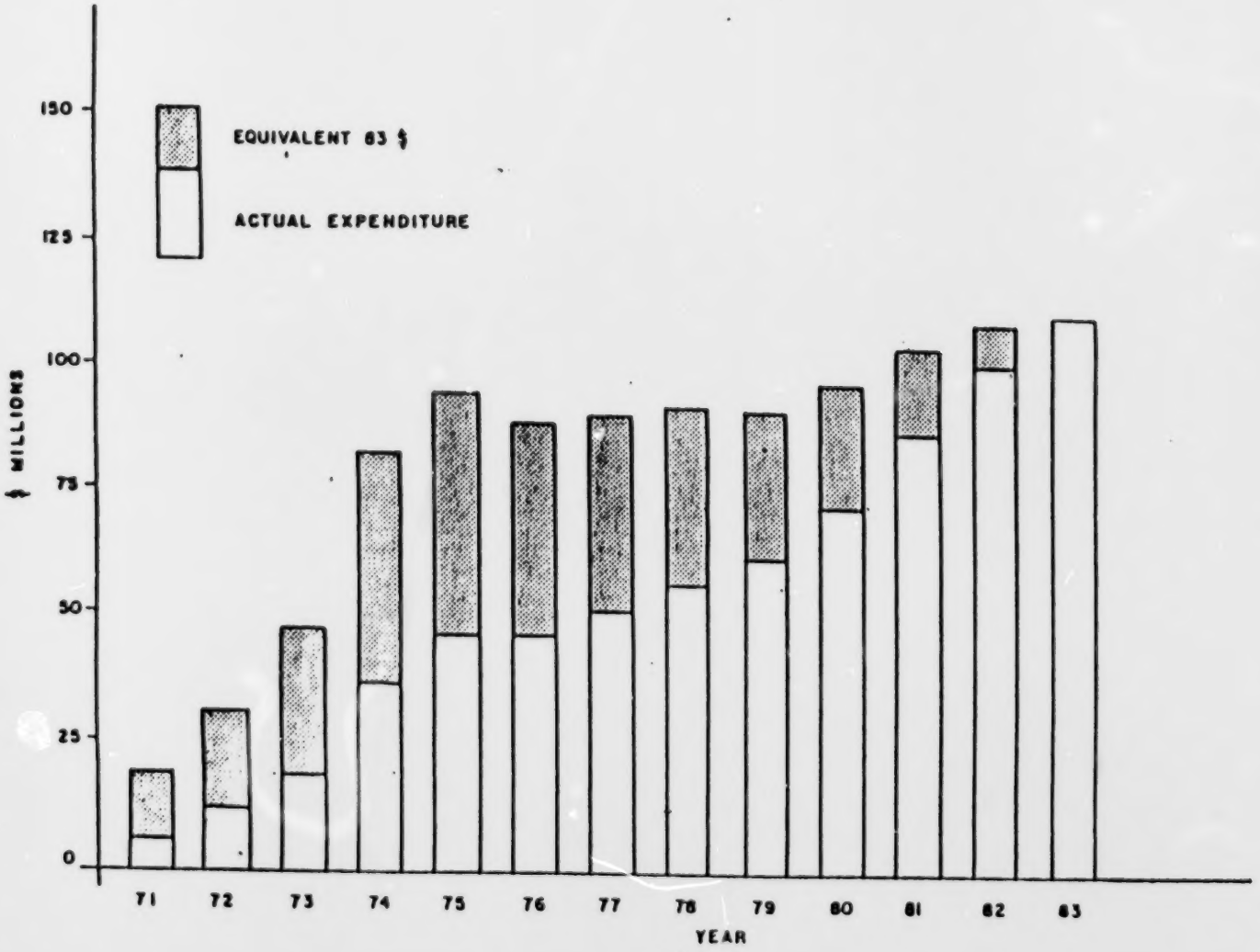


N.B. 1974 - 1983 INFLATED BY C.P.I. TO 1984 DOLLAR
1984 - 1993 BASED ON MEDIUM GROWTH SCENARIO

TTC OP 84.07.26 DRG NO 8780

EXHIBIT 4.5

MUNICIPAL TRANSIT - OPERATING
CONSTANT 83 $



SOURCE: PRESENTATION OF MTC ON PROVINCIAL EXPENDITURES, JULY, 1984

real increases. Furthermore, there may be more pressures on the Province from other developing transit properties in Ontario for even greater transit operating assistance. These factors may serve to restrain any real increase in operating subsidies to the TTC.

4.2 What Can Metro Afford?

Exhibit 4.6 graphically depicts the historical contribution of the TTC, Metro and the Province toward capital expenditures. Since 1959, the TTC has been responsible for a sharply decreasing proportion of its capital expenditures, with Metro picking up the majority from 1959-1971, and the Province paying 75% or more since the early 1970's.

Metro's average annual spending on TTC capital over the next 10 years will vary widely, depending upon what becomes of the BILD subsidy issue and whether or not Provincial restraint dictates the more modest network expansion of Scenario B or C. The average annual Metro share of all capital is shown below.

Average Annual Metro Capital Subsidy (1984-1993)
(millions of 1984 $)

Metro Average 1974-83	Metro Approved 1984-88	Scenario A	Scenario B	Scenario C
25	49.6	34	35	32

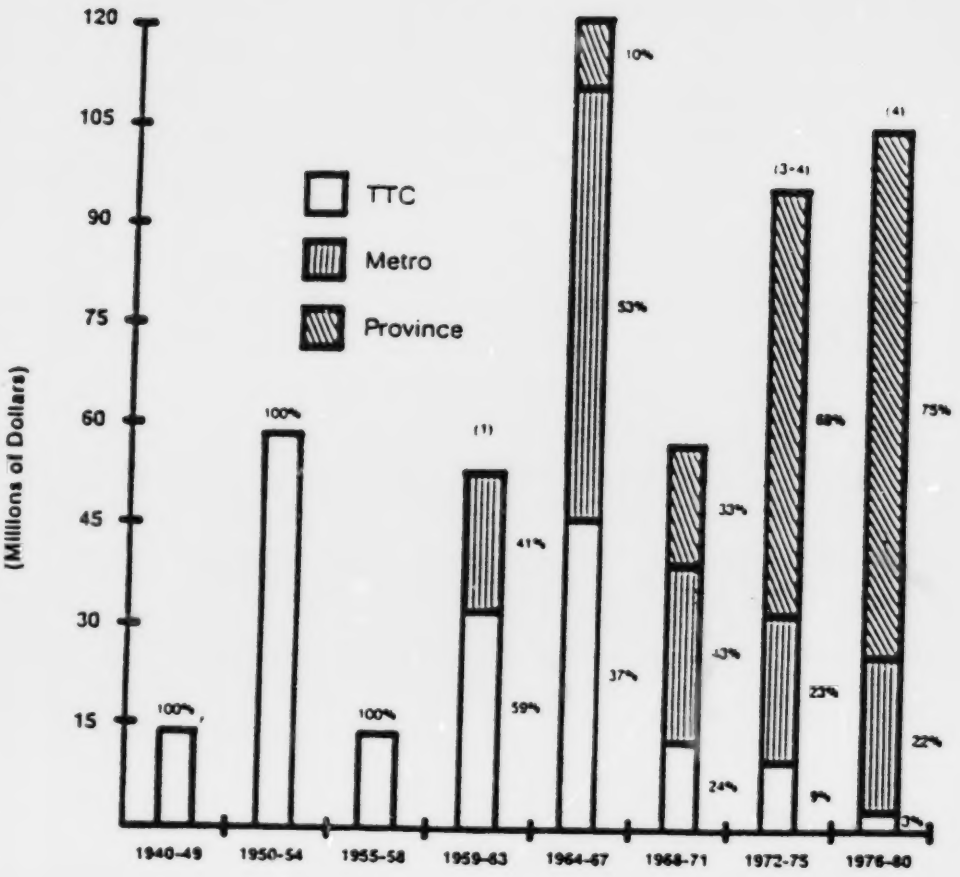
While Metro spent $25 million on the TTC between 1974-1983, this relatively modest level was due, in part, to

EXHIBIT 4.6

FINANCING OF CAPITAL EXPENDITURES

AVERAGE ANNUAL EXPENDITURE

(1981 DOLLARS)



NOTES: (1) 1959 was the first year Capital Subsidy was paid by Metro.

(2) 1964 was the first year Capital Subsidy was paid by the Province.

(3) In 1972, Provincial Capital Subsidy was expanded to include eligible expenditures incurred by Metro and the Metro Boroughs.

(4) Expenditures for 1972 and subsequent years include eligible expenditures incurred by Metro and the Metro Borougns.

SOURCE: Transit Financing: A Background Study for the TTC Long Range Plan, December, 1981

a conservative debt management policy. Recently, with Metro's approval of capital subsidies for the 5-Year Capital Works Programme, an indication of support for higher levels of Metro spending on transit has been provided. This support for a higher level of capital spending on transit is in recognition that the rapid transit network expansion is the cornerstone in a strategy to attract development and shape land use. However, Metro's capital support position could change, if economic conditions change significantly, or Metro has to pay a greater than expected share of the DRT line as a result of the BILD subsidy issue.

On the operating side of the ledger, Metro, since 1984, has traditionally made a 16% contribution towards the Provincially-defined deficit of the TTC. However, in the alternative 1984-1993 ten-year operating scenarios, Metro's contribution is, on average, expected to slightly exceed the Province's each year (e.g. annual average of 16.3% or $66 million for Metro versus 15.7% or $63 million for Province). Metro may also have a problem in future years, in light of restraint, in providing its share of the TTC operating requirements.

4.3 The BILD Commitment

There are a range of alternative interpretations of the Province's BILD commitment to the DRT line (i.e. $90 million or 90% of the Downtown Rapid Transit project, as assumed by Metro and the TTC). If the subsidy under this program is in fact limited to $90 million, this could have serious implications for:

- Significant increase in Metro's share of the costs.
- Staying within MTC's $131 million capital subsidy guideline.

Either situation could affect when and possibly if the project gets built. Metro/TTC could decide to:

- Delay the completion of the entire project by a few years as indicated in Scenario B and Scenario C;
- Proceed with construction in distinct stages;
- Opt for less expensive permanent or interim solutions to serve both the Central Waterfront and relieve anticipated Yonge subway capacity shortfalls (and in the meantime, proceed with the Cross-town line).

In turn, any of these efforts to reallocate scarce subsidy dollars could jeopardize the Province's BILD commitment altogether, since it was initiated to promote UTDC and help market ICTS technology abroad.

This is clearly an issue which needs to be resolved immediately. Uncertainty in financing undermines attempts at responsible long-range planning. In addition, such a misunderstanding, if a suitable compromise cannot be reached, can have a detrimental impact on the co-operation between the TTC, Metro and the Province which has made an enormous contribution to the success of the TTC over the past 20 years.

4.4 Importance of TTC Projects and GO/ALRT

With the recent announcement by the Minister of Transportation and Communications, Provincial financial support will be provided to both the planning, co-ordinating and implementation of the Provincial GO/ALRT Program, and the TTC's Cross-town rapid transit projects along Sheppard Avenue and Eglinton Avenue. With this statement from MTC, the TTC's immediate plans for rapid transit routes in north Metro can be achieved, while longer-term corridors for an inter-regional GO/ALRT service in north Toronto are studied.

As well, the Minister indicated that MTC, TTC and GO Transit would endeavour to work together to look at future commuter demands in the Central Waterfront Area, and develop the most appropriate transit plans for this area, including the TTC's plans for DRT and the Harbourfront LRT.

4.5 Stabilized Budget Approval Process

The Provincial announcement of subsidy restraint came as a bit of an unwelcome shock to the TTC, for two reasons:

- Metro has traditionally been the source of capital spending restraint rather than the Province;
- The general level of spending proposed had been made available to the Province several months earlier. In the interim, the TTC had reasonably assumed tacit agreement.

This situation is disconcerting because it is difficult to undertake financial planning when abrupt, unanticipated, yet avoidable surprises such as this arise. In order to ensure that considerable planning and budgeting efforts are not rendered obsolete, the TTC should seek longer-term approvals, in principle, from the Province by the fall of each year. This formalized process could start by initiating discussions with MTC regarding the capital programs shortly after the 5-year forecast is submitted in July.

The restraint guideline announced by MTC raises the issue of whether or not this general guideline represents a constant rate of spending. This is of interest because it implies substantial cutbacks in spending (e.g. Scenario B and C). In addition, rapid transit project expenditures are traditionally irregular, generating peaks and valleys in the total Capital Works Programme. If a relatively constant level of spending must be adhered to, this will create some juggling problems regarding timing. The $131 million guide-

line, if applied over the next 10 years, necessitates stretching construction schedules out an additional 2-3 years or more, which may not be feasible or desirable.

From Metro's perspective, a constant level of spending on transit reduces flexibility in scheduling other major capital projects from its other responsibilities in the periods when TTC capital requirements drop off.

From the TTC's perspective, however, the principle of stability is exceedingly important and a constant level of financial support (plus escalation) should possibly be encouraged since it would ensure a predictable source of funds upon which to plan for the future. It would be preferable to negotiate this level of spending with Metro and the Province, and have it based on an assessment of what the TTC needs and what the Province can afford to spend over the next 5-10 years.

A regular transit capital allocation would be made to Metro each year, and Metro could spend more or less in a given year in order to schedule projects according to local priorities.

If expenditures were heavy in some years, Metro could finance the additional amount required, thus increasing its share beyond 25%. If spending requirements were lighter, as is often the case when project construction nears completion, Metro would still have its transit allocation, thus paying less than 25%. The principle of a 75:25 split would still be retained, on average.

Whether or not the Province would be willing to accept such a proposal is uncertain. The Ministry of Transportation and Communications would still be able to maintain financial control over projects by having project

approval. However, the Ministry might have difficulty in getting the Provincial government to support a long term funding program, in light of uncertainty about the future economy.

4.6 The Level and Impact of Capital Subsidies

Level of Subsidies

Since 1972, the Province has subsidized nearly 75% of all TTC capital spending. While the 75% subsidy rate for all capital has come to be taken for granted, it is possible that Provincial review of the standardized nature of this rate may recommend changes at some point in the future, notably a reduction in all, or specified elements of the capital programs. A reduction in the overall subsidy rate could represent an attempt to moderate municipal transit expenditures without actually imposing ceilings.

In Metro's case, for example, a reduction of the Provincial transit subsidy rate from 75% to say 50% for all projects could have a devastating affect - requiring a 100% increase (or $35-44 million annually) in Metro's share to support the current levels of capital spending. This would almost certainly change Metro's thinking about what level of transit capital spending it could afford.

Less dramatic, but still significant, would be the Province's proposed reclassification of capital expenditures. This system could lead to Provincial priorities of each class by specification of either spending limits or differential subsidy rates. It is possible that "modifications" and "surface expansion" projects could be reduced to a 50% subsidy, for example. From the TTC's perspective, it is is undesirable to encourage the establishment of Provincial priorities: the Province has authority to approve projects

and set funding levels, but the TTC/Metro should then set priorities given these constraints.

The rationale behind any reduction in the capital subsidy rate is not clear at this time - and probably uncalled for given that municipal-combined operating and capital revenue/cost ratios in Ontario generally exceed those of most major cities across Canada.

Impact of Subsidies

The Province has successfully used the favourable subsidy rate to induce a pro-transit bias, and Metro has naturally emphasized transit in order to get the greatest return on its transportation dollars. Recently, however, the Province has extended its financial influence to further specific goals, by directing the TTC/Metro choice of technology, supplier and alignment priority. Two examples come to mind:

- The Waterfront ICTS - with a BILD subsidy inducement (and recent indication that any significant delay in implementation could jeopardize the special subsidy rate offered);
- Insistence by the Province that the recent streetcar order might not be subsidized if the TTC went to tender and selected a supplier other than UTDC.

It is understandable that the Province wants to have a greater say in matters in which it has a major financial involvement, however, public transit has and should remain the domain of municipal government. While some compromise may be in order given the stake the Province has in UTDC, the TTC is the agency responsible for operating the system within Metro and should be allowed to choose the most appropriate technology. Similarly, Metro and the TTC should jointly determine spending priorities. The Province should not be excluded from participating in these decisions,

although the increasing use of their financial clout to influence local decision-making should be resisted.

4.7 The Approval Process (Environmental/Planning/Land Use)

Major transit capital projects are required to go through what is generally a lengthy and sometimes costly approval process. Such projects require the approval of Metro Council and Council cannot undertake a public work or pass a by-law which conflicts with the provisions of the Metropolitan Official Plan. The current Plan indicates no major additions to the present rapid transit network, other than the Scarborough RT line which is now under construction and, therefore, any new rapid transit proposal would require an Official Plan Amendment. The amendment process requires public hearings and offers the opportunity for all interested parties to lodge objections to the proposed changes. If these objections are considered by the Minister of Housing and Municipal Affairs to be of a non-frivolous nature, the amendment is referred to the Ontario Municipal Board (OMB) for a formal hearing.

Also, it can be expected that any major transit proposal will be the subject of an Environmental Assessment Hearing under the terms of the recently approved Environmental Assessment Act (EAA). Although the Minister of the Environment can grant exemptions, either in whole or in part, such as the total exemption given to the Park Home Subway Station project, it is unlikely that a proposal for a complete new rapid transit line would receive such treatment. The EAA requires a comprehensive review of the project, including a detailed justification of the proposal and an examination of possible alternatives to it.

To facilitate the approval process, major project proposals are sometimes presented before a joint OMB/Environ-

mental Assessment Hearing. But, in any event, a considerable amount of preparation is required in terms of developing planning, financial, environmental and legal agreements in support of the proposed project. Such background work and study can add substantially to a project's cost. Also, hearings have to be booked in advance, can take months to complete and require time for a final decision and last stage appeals to the Ontario Provincial Cabinet to be made. In certain cases, this may add significant delays to the undertaking of the project, which result in further costs.

4.8 Alternative Sources of Funding for Capital Projects

With a less favourable Provincial BILD commitment and Provincial restraint, there is a need to review some feasible and alternative sources of funds which Metro could use for transit capital projects such as the rapid transit network extension.

Possible sources of funds which could be considered and the respective advantages and disadvantages are briefly summarized.

1. Increasing the Revenue/Cost Ratio

Riders could contribute towards capital costs by raising the revenue/cost ratio and earmarking the increased revenues. For example, by moving to the Province's 72.5% revenue/cost target for Metro, $13.5 million would be generated annually and only a 4¢ increase in average fares would be required over and above the average fare increase of 3-4¢ (i.e. at 5% increase). This policy could alternatively be phased-in over a number of years to ensure that neither a large fare increase nor deterioration of service standards would be necessary.

While this option would generate a significant amount of revenue at virtually no administrative cost, it would have some adverse impact on ridership, at least in the short run, and would be politically unpopular.

2. Earmarked Transit Levy

A special transit levy could be established for which each 1 mill of levy would yield over $10 million. Establishment of such a levy would serve to increase the proportion of the TTC's capital spending which would be financed from the current budget.

A special transit levy, initiated in 1959, was eliminated in 1979, based on the argument that transit should receive no "institutionalized" priority or access to general revenue by virtue of an earmarked levy, and that all Metro's projects should be financed by the same proportion of pay-as-you-go versus debt financing. However, in light of the strong support transit receives in Metro, it may be politically more expedient to initiate an identifiable special levy rather than to simply raise the general levy.

3. Transfers from Road and Parking Charges and Gasoline Taxes

Parking and gasoline surcharges, and vehicle ownership taxes could be easily administered and could in the latter case, provide approximately $12 million in annual revenue if an average tax of $10 were implemented. The logic behind the initiation of these transportation charges is that auto users traditionally have only paid a fraction of the construction and maintenance costs of roadways.

The vehicle ownership tax could be implemented regionally or on a Province-wide basis so the revenue could

be distributed to Metro, GO Transit and other transit operations.

4. Municipal Business, Sales or Income Taxes

With the passage of appropriate enabling legislation, the Province could collect significant revenue for Metro under each of these options (each 1% increase in income tax generates over $150 million). There are some good examples in France (payroll levy) and the United States (sales tax levy) for the use of these taxes for public transportation costs.

However, there is not a strong rational for initiating these taxes specifically for transit. As well, the implementation of these taxes might serve to promote the relocation of funds and residents outside Metro, where tax rates are already lower than in Metro.

5. Increased Private Sector Involvement

Additional revenues could be raised for transit projects if the private sector were persuaded by legislation changes to make a more significant contribution to transit projects. Several ways include:

- Requiring private concerns when contributing land to transit projects to evaluate the land at pre-construction rates rather than the inflated prices that exist after completion of a project;
- Charging the adjacent private interests more than the actual costs of requested station modification or rehabilitation, as the long-term benefits are significant;
- Encourage the use of purchase and lease-back tax shelters (requiring co-operation from the federal government).

While these methods would increase private sector contributions to public transit projects, there is little political support to change the role of the private sector in the provision of transportation infrastructure.

6. Increased Role of Metro as Developer

The modification of existing legislation (Environment Assessment Act), and increased local area municipal co-operation could permit Metro to acquire land along rapid transit corridors (stations) above the requirements for the transit facility, and allow the maximum development and market value leasing of this land. These changes would, in turn, enable rapid transit projects to be more self-sufficient.

There is little political support at this time to allow Metro to play a developer role along rapid transit lines.

7. Debentures

Additional revenues could be obtained for transit capital projects by debenturing more capital requirements. Increased debenturing of TTC capital projects would have the impact of lowering the requirements for capital projects from the current budget.

4.9 Carryover Fund

The formula under the current operating subsidy policy does not formally provide any means for returning any R/C surplus to the riders in subsequent years. If, as in 1980, 1981 and 1982, the R/C target is substantially exceeded, the resultant surplus from the actual 68% revenue requirement is simply used to reduce the Metro and Provincial

taxpayers' share at the end of the year. The riders see no subsequent benefit via improved service or lower fares (i.e. a lower R/C in succeeding year(s)) to average out the actual R/C level; thus, they have paid more than their "fair share". This is not in conformity with either the principle or logic of the user's fair share concept.

Some resolution to this problem could be achieved by the establishment of a carryover fund. The principle behind the carryover fund is that the R/C ratio is a target which cannot always be precisely met each year, but rather should be met on average. Thus any surplus achieved in one year would be retained by the TTC for use in future years, to:

- Bring the R/C average up to 68% or other established target if preceded by a lean year;
- Reduce the fare increase requirement or improve the level of service (thereby reducing the average to 68%) if preceded by a good year; or,
- Cover possible future revenue shortfalls, thereby avoiding reduction in programmed service improvements.

One possible use of such a fund is shown by way of example in Exhibit 4.7. If, in 1984, a 69.0% R/C is actually achieved, a $4 million surplus is generated - reducing the total operating subsidy requirement by this amount (Metro saves $3 million; the Province saves $1 million based on the sliding scale provision). If a carryover fund is created, consisting of $3 million, the Metro subsidy to the TTC for 1984 remains as if the 68% target was achieved. In 1985, the projected revenue requirement from fares can be reduced by $3 million, yielding a R/C of 67.3%. The $3 million drawdown of the carryover fund is used to reduce the resultant Metro subsidy requirement. The user's share over 2 years is much closer to 68% than without the fund, and a lower fare increase could be implemented in 1985.

Exhibit 4.7

Carryover Fund Option - (An Example)

	1984			1985	
		Actual		Budget	
	Budget	Without Fund	With Fund	Without Fund	With Fund
Expenses	394.6	394.6	394.6	420.5	420.5
Revenue	268.3	272.3	272.3	285.9	282.9
R/C %	68.0	69.0	69.0	68.0	67.3
Surplus/ (Shortfall)	Nil	Nil	4.0	Nil	(3.0)
Operating Subsidy:					
Province	62.0	61.0	61.0	67.2	68.0
Metro	64.3	61.3	61.3	67.4	69.6
+ Fund	Nil	Nil	3.0	Nil	(3.0)
	64.3	61.3	64.3	67.4	66.6
Total	126.3	122.3	125.3	134.6	134.6
Carryover Fund Balance	Nil	Nil	3.0	Nil	0.0

Advantages

A formalized mechanism for basing the next years' R/C target on the previous year's actual performance would have a number of advantages:

- It would introduce both greater equity and predictability into the financing process - the objectives of the "user's fair share" concept. The riders would pay their share, on average - and political debate regarding what to do about the surplus could be avoided.
- It would contribute to greater ridership, if surpluses are achieved, by permitting lower fare increases, or improved service in subsequent years.
- It would provide an even greater incentive for TTC management to continually pursue means of providing

more effective, and efficient service, since any surplus would be poured back into the system. As it now stands, once the budget is "struck" the incentive in the budget year is to precisely achieve both the budgeted expenses and the R/C target - no more, no less. Overachievement is as bad as underachievement, for it draws the inevitable attacks of "overcharging the riders".

Disadvantages

- The principle of carryover funds is not in favour with Metro, because it is perceived as reducing Metro Council's control of funds which would otherwise be at their disposal (the tradeoff for the increase in TTC autonomy);
- The political acceptability of increasing the target once it has been allowed to drop (for averaging purposes) has been questioned. Thus the carryover fund is thought to work in one direction only.

While the carryover fund concept was rejected in 1981 and 1982 after large surpluses from 1980 and 1981 were generated, it is an important refinement to the subsidy formula - representing an improvement in equity and predictability, an incentive to TTC management and an encouragement to ridership. Metro should be requested to reconsider their previous position in this regard.

4.10 The $1.00 Cash Fare

While the adult cash fare will soon reach $1.00 (1985 or 1986), it will be as a result of inflation, and in fact no real fare increases are anticipated. While adult ticket fares will be much lower than this, there is some concern that the $1.00 level represents a barrier or threshold, that once passed could generate severe public and political pressure to hold the line on fare increases. However, surveys of riders have indicated that they are willing to pay higher fares to offset inflation in costs. Experience has shown that people are willing to pay for good

service - and that trading off either service or subsidies for lower fares is no bargain, since riders are not very sensitive to fare increases as long as they are within reason.

4.11 Seniors/Concession Fares

Concession fares should be considered a social, not a transportation subsidy. Concession fares to children and students have been offered since before the formation of the Commission in 1921. These concession fares have always been subsidized by adult riders. In 1971, the Metro grant program for seniors, the blind, and war amputees was established, whereby half the burden of transit fares was shifted from these presumably financially disadvantaged groups to the taxpayer. This was in fact the case between 1971-1976, when fare subsidies were considered to contribute to the TTC's operating deficit, with 50% funding from Metro and 50% from the Province. System riders were not expected to, and did not contribute to these concession fares.

However, in 1977 the subsidy calculation became tied to Provincially-defined expenses, and Metro's seniors grant was no longer considered eligible revenue. Since then, Metro's seniors grant program has not, in fact, served to increase Metro's total contribution towards the operating expenditures of the TTC. It has only shifted the burden of half of the seniors fares to other fare-paying riders. As illustrated in Exhibit 4.8, with or without the seniors grant, $269 revenue is required in 1984 to achieve the 68% R/C - and the resultant total Metro contribution is $64 million. This exhibit utilizes data which approximates figures in the 1984 operating budget.

Exhibit 4.8

Incidence of Concession Fares to Seniors
(millions of 1984 $)

A. No Metro Seniors Grant		B. With Metro's Seniors Grant		Change Between A & B
Revenue from Seniors	20	Revenue from Seniors	10	Decrease of $10 M
Revenue from Other Metro Riders	249	Revenue from Other Metro Riders	259	Increase of $10 M
TOTAL REVENUE (68.1%)	269	TOTAL REVENUE (68.1%)	269	No Change
TOTAL OPERATING EXPENSES	395	TOTAL OPERATING EXPENSES	395	No Change
Subsidies		Subsidies		
o Metro	64	o Metro	54	Decrease of $10 M
o Province	62	o Province	62	No Change
No Seniors Grant	0	Seniors Grant	10	Increase of $10 M
TOTAL SUBSIDY	126		126	
TOTAL METRO CONTRIBUTION	64		64	No Change
TOTAL PROVINCIAL CONTRIBUTION	62		62	No Change

As recommended in the TTC's Long Range Plan, the costs of all concession fares should be considered social service costs, not transportation-related costs. As such, they should be paid for by special earmarked subsidies from other budgets, rather than by other transit riders, which is how the Wheel-Trans subsidy program for the disabled is managed.

The long history of children's and students' fares makes it difficult to justify shifting this cost back to the taxpayer. However, this was the stated intention of the Metro seniors grant program at its inception in 1971 and it can thus be argued that it is now neither fair nor appropriate that other TTC riders must subsidize these concession fares.

There are two principle options available to restore this grant to its pre-1977 status, when these concession fares were directly subsidized by the taxpayer:

1. The TTC could charge seniors full price for tickets. Upon proof of purchase, a direct transfer payment equal to half the price of the ticket receipts would be given to the seniors by Metro. This grant program would be appropriately considered as a "social service" subsidy, not a transit subsidy. Metro would apply for an offsetting grant from the Province, much like the Wheel-Trans subsidy.

   Such a program, while administratively complex, would permit the non-senior fare requirement to be reduced, with the incidence shifting from riders to taxpayers.

2. Alternatively, and more simply, the Province and Metro could equally split the provision of a new social services grant which would provide offsetting revenue for the seniors concession fares. As well, the Province could revise its subsidy formula to recognize this social services grant from the Province and Metro as eligible revenue. This option is illustrated in Exhibit 4.9, which utilizes data which approximates figures in the 1984 operating budget.

Exhibit 4.9

Proposed New Seniors Grant
(millions of 1984 $)

A. No Modification to Existing Metro Seniors Grant (R/C 68.1%)		B. Proposed New Seniors Grant (R/C 68.1%)		Change Between A & B
Revenue from Seniors	10	Revenue from Seniors	10	No Change
Revenue from Other Metro Riders	259	Revenue from Other Metro Riders	249	Decrease of $10 M
		*Revenue from New "Social Service" Grant:		
		o Province	5	New Revenue
		o Metro	5	$10 M
TOTAL REVENUE (68.1%)	269	TOTAL REVENUE (68.1%)	269	No Change
TOTAL OPERATING EXPENSES	395		395	
Subsidies	126	Subsidies	126	No Change
Metro	64		64	No Change
Province	62		62	No Change
TOTAL SUBSIDY	126		126	No Change
TOTAL METRO CONTRIBUTION	64		69	Increase of $5 M
TOTAL PROVINCIAL CONTRIBUTION	62		67	Increase of $5 M

Advantages

- The grant would involve direct subsidization of concession fares by taxpayers. This would be more equitable and would be a step in separating out social service subsidies from transit subsidies (as recommended in the TTC's Long Range Plan);
- Reduction in the user's contribution would induce greater ridership, since either fares could be lowered, service improved, or some combination of both;
- The TTC could re-examine its position of not offering a seniors pass at half the Metropass price, since the anticipated loss in revenue under this proposal would not have to be made up by other riders.

Disadvantages

- Administratively, the first option would be complicated and inconvenient. The second option would involve a

major change in the Provincial subsidy formula which would have to apply to all properties in Ontario.

- Metro and the Province would not likely consider this proposal too kindly, since it would involve an increase in Metro and Provincial total payments.

This proposal has considerable merit from the TTC's perspective, in that it espouses a separation of social service costs from transportation costs, similar to the Wheel-Trans program. This is a principle which the TTC should continue to pursue. This particular issue may be resisted by Metro or the Province, however, due to the resultant financial implications.

4.12 Cross-Boundary Subsidies

Metro residents are cross-subsidizing transit use by a large number of inter-regional commuters. Cross-boundary ridership is now estimated to be 8-10% of all TTC trips and is expected to account for 40% of ridership growth to the end of the decade (i.e. will increase to 12% of average annual TTC ridership by the end of the decade). These riders are cross-subsidized by Metro taxpayers by as much as $5-7 million annually, which translates to a 13¢ cost per passenger trip. At a future level as high as 50 million trips annually, this would imply the TTC would be carrying as many passengers originating outside Metro as GO Transit, and this component alone would be greater than total passengers carried by most transit properties in Ontario.

Inter-regional commuters receive a much higher rate of subsidy - both operating and capital, than Metro residents utilizing the TTC. In addition, they generate:

- Capital requirements for which Metro must pay 25%. Meanwhile, GO capital costs are fully subsidized by the Province, and virtually eliminate the need for any significant capital spending by the outlying regional municipalities; and,

- Operating costs, of which at least 50% of the subsidy requirement are met by Metro taxpayers. A simplified example is provided in Exhibit 4.10.

Exhibit 4.10

Cross-subsidization of Non-Metro Residents Using TTC

(millions of 1984 $)

	% of Total TTC Ridership		
	8%	10%	
Asscciated Expenses	31.6	39.0	($395 x 8%-10%)
Revenue	21.5	26.5	(Expenses x 68%)
Net Cost	10.1	12.5	
Provincial Share	4.7	5.8	(14.875%)
Metro Share	5.4	6.7	(17.125%)
Total Subsidy	10.1	12.5	(32.0 %)

As well, Metro-resident TTC riders must compete, often unsuccessfully, for available rush-hour seats with these inter-regional commuters who get on at the end of the line (principally as a result of commuter parking lots and the use of Kipling, Islington and Finch subway stations as GO, Mississauga and Markham Transit terminal stations). Many of these non-Metro resident commuters also travel via their local transit service, or GO, which are much more heavily subsidized than the TTC and which are thus receiving a much better deal from the Province (e.g. GO Transit passengers received a $1.95 Provincial subsidy per trip in 1982, versus a $0.14 subsidy per trip for TTC passengers).

While it can be argued that Metro taxpayers receive a benefit by subsidizing these cross-boundary trips, namely increased business assessment, the residential assessment from these commuters leaves the community. The Province, in turn, gets both the business and employee income generated by employment concentration.

It is inequitable that non-Metro resident commuters are cross-subsidized by Metro residents, particularly when these commuters often receive a much greater subsidy/trip within their own municipalities, or by GO Transit. There is, therefore, strong grounds for lobbying the Province for a review of their level of subsidy to Metro.

4.13 Fare Integration

Fare integration has been offered up as a concept whereby riders who must use more than one transit property to complete a journey would pay a single fare (or use a single pass) for that journey. It is assumed that the sum of the cost of this integrated ticket would be not more than the cost of the ride on the individual properties. If the cost of a joint ride is to be less than the costs of the separate rides, then a reimbursement for revenue lost to one or more of the operators must be considered.

A current MTC study of fare integration has shown that the majority of multi-property trips within the Toronto-centred region involve the TTC. It is assumed that most of these TTC multi-property rides are made by persons residing outside of Metro. As discussed earlier under the heading of "Cross-Boundary Subsidies", outside-Metro commuters, who do not contribute to TTC operating deficits through their property taxes (as do Metro residents), are already benefitting from a cross-subsidy of $5 to $7 million annually. As the regional municipalities grow, so will this cross-subsidy.

TTC research has shown that transit riders do not have a high elasticity to fare changes. Thus, reductions in fares would not attract enough new ridership to make up for any revenue foregone in fare reduction schemes.

Therefore, given that Metro riders and residents already cross-subsidize non-Metro-resident riders, and given that any decreases in fare charges would involve a net loss in revenue (to some operator), it would be unfair to ask the TTC to forego any revenue for the purpose of fare integration.

In the event that inter-regional fare integration becomes a reality, Metro and the TTC will want to ensure that the benefits of such a scheme do not accrue entirely to non-Metro resident commuters at the expense of Metro riders and taxpayers. There is considerable precedent for the Province absorbing much of the costs of any integrated fare ticket discount schemes. Combined with a general increase in the Province's contribution toward the TTC's costs in providing service to non-Metro residents, the principle outlined above would represent a more equitable distribution of the costs to provide inter-regional service.

As indicated above, inter-regional commuters are already cross-subsidized by Metro, and any erosion of the TTC's revenue base to provide discounted fares for inter-property travellers should be resisted.

4.14 Changing the Revenue/Cost Ratio

A number of alternative substantive or procedural changes to the current revenue/cost ratio target can be considered. A central issue to these modifications is whether they would serve to improve the equity of the fare system for the riders. Some key modifications to the ratio and their respective advantages or disadvantages are summarized.

Raising the Revenue/Cost Ratio

Advantage

- The existing revenue/cost ratio has provided some financial stability to the operation of the TTC, and has served to promote the TTC to be operated on a business-like basis and to promote effective and fiscally responsible management.

Disadvantage

- Raising the revenue/cost ratio would cause fares to rise excessively and could be considered inflationary. Additionally, some ridership would be lost. As well, this would increase the burden on the rider for financing operating expenditures.

Lowering the Revenue/Cost Ratio

Advantages

- Transit in Metro serves a multitude of community objectives other than meeting travel demands. These community objectives - land use and economic development, energy conservation, air pollution reduction, etc. warrant a higher contribution from the taxpayer. This would serve to improve the equity of how operating expenditures are financed.

- Fare increases can be kept down, and combined with service improvements, generate increased ridership.

Disadvantages

- Lowering the revenue/cost ratio would mean that the additional ridership objectives of the TTC would be achieved at a significant higher subsidy cost per new ride.

- Lowering the revenue/cost ratio would make the TTC even more dependent upon Metro and the Province for its financing at a time of public sector spending restraint, and thus make the TTC more susceptible to changes in government policy. In addition, as the absolute and proportional subsidy payments increase, there is a definite risk that the TTC autonomy could be undermined, since greater government control of such large expenditures may be sought.

- A greater financial burden would be created for Metro, as Metro would be responsible for three-quarters of the increased subsidy. This would create an even greater disparity between the Metro and Provincial shares of the subsidy requirement.

Other Modifications to Revenue/Cost Ratio

However, several modifications can be made to the current revenue/cost ratio which will not significantly lower or raise the ratio, and other changes can be made to the overall operating subsidy policy which will serve to improve the financial stability of the TTC, improve the equity of the fare system for Metro riders, and stabilize the long-term operational planning of the TTC. Some of these modifications were discussed previously in detail in this chapter. However, in summary, the changes include:

- The establishment of a carryover fund to return any surplus achieved by exceeding the revenue/cost target to riders in subsequent years;

- The shifting of the incidence of concession fare grants for seniors to the taxpayer by reducing the actual contribution of revenue to the revenue/cost target made by adult riders to cover the cost of concessions, and substituting this actual revenue with a transfer equally split by Metro and the Province;

- The expansion of the special subsidy program for new rapid transit projects (built initially to meet economic or land use development objectives), so system riders do not have to make up the high net costs associated with these projects until they reach maturity (e.g. Spadina, Scarborough). This would involve a transfer from Metro to the riders equivalent to 50% of the estimated difference between the 68% revenue/cost ratio and the actual revenue/cost ratio on the new projects;

- The establishment of a principle with respect to fare integration ticket discounts so all lost revenue under such schemes is met by the Province;

- A request to the Province for the provision of a longer term operating subsidy grant program (5 years) to introduce more stability into transit operational financing and planning;

- A request to the Province for the introduction of special operating subsidy incentives based on some transit performance criteria such as total ridership, ridership/vehicle kilometres, and subsidy/ride.

APPENDICES

APPENDIX A

CURRENT TTC 5-YEAR CAPITAL EXPENDITURES AND PROJECTS

In late 1983, the Metro Budget Sub-committee approved the following levels of TTC capital spending.

TTC Capital Expenditures
(millions of escalated $)

1984	1985	1986	1987	1988	1984-1988
236	274	268	323	552	1,656

These expenditures included 3 major rail expansion programs:

1. Harbourfront LRT (total 1984 $ cost: $133 million)

A signal-prioritized, partially grade-separated streetcar service, in 3 parts:

- Union Station to Spadina Avenue along Harbourfront;
- An extension from Spadina into the CNE; and,
- A Spadina LRT from the Bloor/Danforth subway to Queen's Quay, along Spadina Avenue.

2. Downtown Waterfront/Relief Line (total 1984 $ cost: $673 million)

While the specific alignment and technology choice are currently under investigation, this line is generally assumed to use modified ICTS technology (higher capacity vehicles and standard propulsion), and run from:

- Exhibition Place to Union Station (Waterfront segment);
- Union Station to the Bloor/Danforth subway in the vicinity of Pape or Donlands Stations.

3. Cross-town Line (total 1984 $ cost: $706 million)

As with the Downtown line (DRT), technology and alignment are as yet unresolved, however, the segment from Dufferin Street to Scarborough City Centre along Sheppard Avenue is being given the highest consideration, with the first stage (upon which the above cost estimate is based) likely to be from Yonge Street to the Town Centre.

This line could ultimately be integrated with the Province's proposed $4.0 billion, 20-year GO-ALRT program, which includes:

- An extension of the present GO commuter rail line to Oshawa and Hamilton;
- Electrification of the present Lakeshore GO line (necessitating a separate corridor); and,
- A northern GO line traversing Metro - conceivably a joint-use facility in conjunction with the proposed TTC Cross-town line.

Provincial Subsidy Restriction

In January 1984, MTC indicated that its contribution to the TTC for 1984 would be limited to $131 million, and that this level should be considered a guideline (plus an allowance for inflation) for future years as well.

Since the TTC's proposed capital expenditures greatly exceeded this $131 million level, a major adjustment, particularly to the Capital Works Program, was necessary in order to meet this constraint. This was accomplished by deferring several projects, the most notable of which was the Cross-town line. Expenditures for this project (other than the feasibility study) were completely removed from the 1984-1988 program, although it should be noted that the order of project implementation is still subject to change. The

total capital spending now proposed for the period is shown below.

TTC 5-Year Capital Expenditures (Revised)

(millions of escalated $)

	1984	1985	1986	1987	1988	Total 1984-1988
Proposed (based on Provincial subsidy limitations)	152	189	250	328	421	1,339
Previous (approved by Metro Budget Sub-committee)	236	274	268	323	555	1,656
Change	(84)	(85)	(18)	5	(134)	(316)

APPENDIX B

TEN-YEAR CAPITAL SCENARIOS

Scenario A: BILD = 90% of Downtown Rapid Transit Project (DRT)

The 1984-1993 expenditures for Scenario A, which can be characterized by a relatively rapid expansion of the rail network are shown in Exhibit B.1. Key assumptions include:

- The entire DRT project will receive a 90% subsidy from the BILD budget (presently assumed by Metro and the TTC);
- A general level of spending on on-going maintenance and rehabilitation continues throughout the period;
- New bus requirements due to ridership and service mileage growth and annual retirements between 1990-1993 due to replacement of the trolley coach fleet are met;
- Completion of rapid transit expansion projects as detailed in the TTC's conceptual Long Range Plan occurs every 4 to 5 years, with some overlap between projects. Thus, the Cross-town line commences in 1989, with completion in 1995 and Eglinton starts in 1992, with completion in 1998.

In 1984 dollars, the program peaks in 1988 and 1989 at roughly $310-330 million (up from $152 million in 1984), and spending is fairly even from 1990 to 1993.

In Exhibit B.2, the incidence of capital subsidies for Scenario A is illustrated. The MTC guideline of $131 million is fairly closely followed. The ten-year average subsidy level for MTC is $110 million, and for Metro is $34 million.

Exhibit B.1

Scenario A

Ten-Year Capital Expenditures (1984-1993)

(millions of escalated $)

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Works in Progress:	118.1	107.8	87.2	83.2	43.8	15.0				
New Projects:	19.9	32.5	67.8	17.7	34.1	42.8	48.8	32.8	35.5	38.3
Major Rail:										
o HLRT	2.0	5.0	5.0	32.6	54.5	56.5	30.2			
o Waterfront/ Relief	1.6	6.3	55.0	154.3	252.3	310.2	157.3			
o Cross-town	0.6					21.6	56.7	120.0	230.0	240.0
o Eglinton	0.4								5.7	12.5
	4.6	11.3	60.0	186.9	306.8	388.3	238.2	120.0	235.7	252.5
Total Capital Works	142.6	151.6	215.0	287.8	384.7	446.1	287.0	152.8	271.2	290.8
Capital Budget	8.9	37.4	25.5	44.1	36.6	39.5	43.0	51.8	56.0	60.4
Total Capital	151.5	189.0	240.5	331.9	421.3	485.6	330.0	204.6	327.2	351.2
1984 $ (i.e. without 8% escalation)	151.5	174.9	207.0	262.6	309.8	330.2	207.9	118.7	176.7	175.7

Exhibit B.2

Scenario A:
Incidence of Capital Subsidies (1987-1993)

(millions of 1984 $)

BILD Subsidy Interpretation	1987	1988	1989	1990	1991	1992	1993	Total 1984-1993
BILD = 90% DRT:								
o MTC	104	92	88	82	89	132	131	1,101
o BILD	110	167	190	89	-	-	-	605
o Metro	39	43	44	30	21	37	36	342
Under/(Over) MTC Guideline of $131 Million	27	39	43	49	42	(1)	-	209

Scenario B: More Restrained With BILD = $90 Million of DRT

Scenario B, in Exhibit B.3, differs significantly from Scenario A in that it assumes the Provincial contribution to the DRT project would be limited to $90 million not 90%, and that total capital expenditures would be even more restrained. Capital expenditures in the 1987-1993 period are reduced by $337 million from Scenario A. This would be achieved by:

- Delaying the start of the Spadina LRT by 2 years;
- "Stretching out" the DRT construction schedule by 3 years (finishing in 1993 rather than 1990);
- Delaying the completion of the Cross-town project by 4 years (finishing in 1998/99 versus 1995 in Scenario A);
- Remove Eglinton from the 10-year program altogether (delay of 4-5 years);
- Other cutbacks in projects such as CIS and the Capital Budget.

Exhibit B.3

Scenario B
Ten-Year Capital Expenditures (1984-1989)

(millions of escalated $)

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Works in Progress:	118.1	107.8	87.2	83.2	43.8	15.0				
New Projects:	19.9	32.5	67.8	17.7	34.1	42.8	48.8	29.3	31.7	34.2
Major Rail:										
o HLRT	2.0	5.0	5.0	32.6	36.4	18.5	24.7	62.8	11.0	
o Waterfront/ Relief	1.6	6.3	55.0	79.3	84.3	137.2	157.3	158.7	223.6	174.6
o Cross-town	0.6							5.7	11.6	84.0
o Eglinton	0.4									
	4.6	11.3	60.0	111.9	120.7	155.7	182.0	227.2	246.2	258.6
Total Capital Works	142.6	151.6	215.0	212.8	198.6	213.5	230.8	256.5	277.9	292.8
Capital Budget	8.9	37.4	25.5	44.1	36.6	39.5	42.7	46.1	44.0	53.7
Total Capital	151.5	189.0	240.5	256.9	235.2	253.0	273.5	302.6	321.9	346.5
1984 $	151.5	174.9	207.0	204.0	172.9	172.2	172.4	176.6	173.9	173.3
Change from Scenario A - 1984 $	-	-	-	(58.6)	(136.9)	(158.0)	(35.5)	57.9	(2.8)	(2.4)

As shown in Exhibit B.4, this significant restriction in the Provincial BILD program would increase the 10-year average annual subsidy of MTC to $129 million from $110 million in Scenario A and Metro's average annual share would increase from $34 million to $35 million.

Exhibit B.4

Scenario B: Incidence of Capital Subsidies
(millions of 1984 $)

	1987	1988	1989	1990	1991	1992	1993	Total 1984-1993
MTC	130	129	128	129	132	130	129	1,290
BILD	27	-	-	-	-	-	-	76
Metro	38	37	36	36	37	38	37	351
Under/(Over) MTC Guideline of $131 M	1	2	3	2	(1)	1	2	20

Scenario C: More Restrained

While Scenario B is not desirable from the TTC's perspective, it is quite possible that it understates the trend to restraint, which may in fact become more restrictive in the future. Thus, Scenario C, summarized in Exhibit B.5, shows a gradual reduction in the MTC subsidy ceiling from $131 million of Scenario A and B to $100-110 million within the next few years, necessitating a further $174 million cut in expenditures between 1987-1993 from Scenario B.

Exhibit B.5 assumes a further delay in the completion of major projects:

- o DRT completed in 1994 (versus 1990 in Scenario A);
- o Cross-town completed in 2002 (versus 1995);
- o Eglinton completed in 2007.

Exhibit B.5

Scenario C
Ten-Year Capital Expenditures

(millions of escalated $)

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Works in Progress:	118.1	107.8	87.2	83.2	43.8	15.0				
New Projects:	19.9	32.5	67.8	17.7	31.1	34.8	40.2	23.5	25.4	27.4
Major Rail:										
o HLRT	2.0	5.0	5.0	32.6	36.4	18.5	24.7	62.8	11.0	
o Waterfront/ Relief	1.6	6.3	55.0	79.3	84.3	112.2	130.3	129.5	198.9	210.0
o Cross-town	0.6									6.7
o Eglinton	0.4									
	4.6	11.3	60.0	111.9	120.7	130.7	155.0	192.3	209.9	216.7
Total Capital Works	142.6	151.6	215.0	212.8	195.6	180.5	195.2	215.8	235.3	244.1
Capital Budget	8.9	37.4	25.5	34.1	25.8	27.8	30.1	32.5	29.3	37.8
Total Capital	151.5	189.0	240.5	246.9	221.4	208.3	225.3	248.3	264.6	281.9
1984 $	151.5	174.9	207.0	196.0	162.7	141.8	142.0	144.9	143.0	141.0
Change from Scenario A - 1984 $	-	-	-	(66.6)	(147.1)	(188.4)	(65.9)	26.2	(33.7)	(34.7)

Further cuts in other capital projects and the Capital Budget are assumed as well. In the latter case, this will involve a major reduction in bus fleet purchases (which could restrict service growth).

The incidence of capital subsidies for this scenario are shown in Exhibit B.6:

Exhibit B.6

Scenario C
Incidence of Capital Subsidies

(millions of 1984 $)

	1987	1988	1989	1990	1991	1992	1993	Total 1984-1993
MTC	125	122	106	106	108	107	105	1,162
BILD	27	-	-	-	-	-	-	76
Metro	37	36	31	31	32	32	31	322
Under/(Over) MTC Guideline of $131 M	6	9	25	25	23	24	26	148

The ten-year averages for all four scenarios are shown in Exhibit B.7:

Exhibit B.7
10-Year Average Capital Subsidy
(millions of 1984 $)

	Scenario A	Scenario B	Scenario C
MTC	110	129	116
Metro	34	35	32